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ORIGINAL COMMUNICATIONS.

A Case of successful Amputation at the Shoulder Joint in consequence of an injury sustained by the patient fifteen years ago. By Wm. Byrd Page, M. D., Consulting Surgeon to the Philadelphia Hospital, (Blockley,) Lecturer on Obstetrics in the Medical Institute, &c.

I was called, about 1st December, 1849, by Dr. Elwood Wilson to see Michael Byrne, aged 56 years, who had been for several weeks under treatment for a severe inflammation in the neighborhood of the right shoulder joint.

Michael stated that, about fifteen years before, when in Ireland, while leading a young horse, he was suddenly thrown down and dragged for some distance. His right shoulder and left hip were seriously injured, though the nature of his accident did not seem to have been well understood. He suffered much at the time, and placed himself in the hands of a surgeon, from whose treatment he says that he derived very little benefit. He states that a discharge of matter has occasionally taken place from the neighborhood of the shoulder after an attack of inflammation, and that a number of small pieces of bone have been discharged at different times. His arm has been almost powerless since his

injury, hanging generally a useless appendage by his side, unless supported in a sling.

He attributes his present attack to an attempt at sawing wood, by which he jarred his shoulder, and gave rise to inflammation. On a careful examination of the shoulder, a profuse suppuration was discovered to have taken place, which extended to a considerable distance, and which gave rise to great pain in consequence of the enormous distension of the parts. The patient's strength was fast failing under the suppuration, and the attendant constitutional disturbance. He had been for some time unable to sleep, was very nervous, had no appetite, was bathed in perspiration, and was suffering constant and severe pain in the shoulder and arm.

I at once punctured the abscess in the most prominent point below and in front of the acromion process, and allowed a large quantity of fœtid ill-conditioned greenish pus to escape. On the introduction of the probe, the cavity of the abscess was found to be very large, and the upper portion of the humerus to be rough and bare, while some loose bone could be felt. Stimulants, opiates and good diet were resorted to, and a large flaxseed poultice was applied to the shoulder. The patient's condition improved materially in the course of a few days, and the tumefaction of the parts so far subsided as to allow us to make a more satisfactory examination. A hard, round tumour, supposed to be the head of the humerus, was distinctly felt beneath the clavicle, and was immoveable. The arm was very moveable and entirely powerless, having no connexion with the tumour under the clavicle. The parts were still so altered that the precise anatomical connexion could not be made out, but enough was detected to show that an irreparable lesion existed about the joint, that the upper portion of the humerus was diseased, and that the patient must soon be worn out by the discharge, which continued to be very great. On further consultation, in which Dr. Peace participated, it was determined that amputation at the shoulder joint would alone afford him a chance for relief. He, however, could not make up his mind to the loss of his arm until he became more fully aware of his dangerous condition. Several openings were made, and others occurred spontaneously about the shoulder along the arm, and on the side of the chest below the axilla, to

which region the abscess ultimately extended. He was carefully watched, and supported by stimulants, tonics and good diet, until the 26th December, when a profuse hemorrhage took place from the openings into the sac, which exhausted him to the last degree, and which was arrested with much difficulty, by plugging up the outlets with lint, and the application of graduated compresses, which were secured by a bandage. Being very much prostrated, and fearing that he would die, he now made up his mind to have his arm removed, should his condition again become suitable.

With little hope of saving his life, a supporting treatment was fully pursued until the 16th January, 1849, when the operation, for which he had become anxious, was decided upon.

With the advice and assistance of Drs. E. Wilson, Seymour, Spenser Sergeant, D. H. Tucker and Peace, I proceeded to the performance of the operation.

The patient, after taking a dose of brandy and laudanum was placed on a bed, with his shoulder resting over its side. The arm was held by Dr. Tucker, and the subclavian artery was well secured by Dr. Sergeant by pressure with a key on its passage over the rib. The shoulder was pierced with a long double edged knife, which was introduced in front of, and a little below, the acromion process of the scapula, and the upper flap made by cutting as closely as possible to the humerus down below the insertion of the deltoid. The knife was then carried around the upper extremity of the bone, and along its under surface to a point opposite the termination of the superior flap, and the limb removed. The upper incision was somewhat interfered with by the instruments coming in contact with a large piece of loose bone. The axillary, and other large and many small arteries, were speedily secured without the loss of much blood.

A portion of the head of the humerus was found to be firmly united to the second rib, the superior part of which was carious. It became a question, whether the whole of this portion of the bone should be removed, but as the union to the rib was very firm, and as the neighboring parts were very vascular, it was determined to remove the diseased portions alone, which was accomplished, after its detachment from the surrounding muscle, by the use of Liston's large bone nippers.

The glenoid cavity with its cartilaginous lining and margin

was found to be entirely unoccupied, with the synovial membrane smooth and healthy, which is altogether in opposition to the statement of surgical writers, that a cavity from which the head of a bone has been removed for some time becomes ultimately filled up. No new socket was found, nor had the old one disappeared.

A single stitch was placed in the upper angle of the wound, and the parts were brought together by adhesive strips, and the usual dressings applied.

The operation was borne much better than was anticipated, and the patient expressed himself quite comfortable after being put to bed. Brandy and water with laudanum was administered and gruel allowed.

Five hours after the operation a profuse hemorrhage occurred, which rendered it necessary to open the wound. Several small vessels were tied, and tannic acid was freely applied to the angle of the wound, high up between the remnant of the head of the humerus and the clavicle, from which point much blood was lost. The patient was very much exhausted by the hemorrhage, and complained so much of pain in the parts that I was induced to bring the edges of the wound very imperfectly together.

For several days he was in great danger, and was kept alive by active stimulation. Carbonate of ammonia, opium and camphor, with punch, brandy, porter and quinine were administered in as large doses as could be borne, and we had the satisfaction of finding our patient gradually recovering under their use. From having been constantly in bed for a long time in a helpless condition, bed sores began to form, which were successfully treated by change of position, the use of small cushions, frictions with spirits of camphor, and the application of soap plaster. On the 18th day after the operation, the ligature separated from the axillary artery, the others having been removed from day to day.

The edges of the wound when in apposition, healed by the first intention, but in consequence of their separation, especially at the upper and anterior portion, a good deal of the cure was effected by granulation, which was assisted by the application of Turner's cerate and a solution of quinine and sulphate of copper. A considerable sac existed in the wound, partly formed by the glenoid cavity, and partly by the ununited surfaces of the upper portion of

the flaps. This was caused to be filled up by daily injections of sulphate of copper and quinine, alternated with sulphate of iron and quinine, the solutions being in the proportion of ten grains of each ingredient to the ounce of water. Wet and dry dressings were used throughout the cure according to circumstances. A bandage was firmly applied around the chest, which, with the use of the above injections, caused the sides of the abscess below the axilla to unite. The internal medication consisted im the above mentioned stimulants, tonics, and anodynes, with mild aperients to keep the bowels open, which were very inactive. A troublesome heart-burn was relieved by an infusion of gentian and super carb. of soda, alternated with a mixture of baker's yeast and effervescing draught. A highly nutritious diet was persisted in.

In about six weeks, Michael was able to sit up and walk about his own room, though suffering from debility and swelling of his legs. His strength has gradually returned to him, and he has been for some time going about the streets, with a locomotion not altogether perfect, in consequence of the old injury to his left hip. He has still a slight discharge from the upper portion of the wound, with which I have thought it best not to interfere, as it is very trifling, and perhaps serves a salutary purpose.

Yesterday, June 22, 1849, I saw Michael. He is fat and hearty, is cheerful, is perfectly satisfied with the result of the operation, and is especially content that he is still in the land of the living.

My thanks are due to the gentlemen who assisted in the operation, and especially to Drs. Wilson and Seymour, as on their unremitting and assiduous attentions during the whole treatment of the case, did its success depend.

Case of Intra-pelvic Tumor impeding Delivery. By Samuel Lewis, M. D., Philadelphia.

I was requested by Mr. T. on the 4th ult., about eleven o'clock, A. M., to see his wife, who was in labor with her second child. On arriving at the house, I learned that labor-pains had commenced early that morning, and had been regular and of increasing

strength ever since. After some little time, I proceeded to make the usual examination. I found the os uteri dilated to the size of a quarter of a dollar, with the membranes presenting, and the vagina well lubricated. On passing my finger over the posterior parietes of the vagina, I perceived an unusual fulness, which I took to be the rectum very much loaded. I ordered an enema, and as my presence was not immediately required, I left, promising to call again at one o'clock. At my second visit, I was informed that the injection had been administered, but with very little effect, and that she was unable to pass her urine. I drew off the water, and then made another examination. I found the same state of things, except that the os was further dilated,—there was no diminution, whatever, of the fulness which I had previously observed. Still thinking that it was caused by hardened fæces, I ordered the injection to be repeated; this was done, but with no better result than the first. I then made an examination per rectum, when I perceived that what I had taken for impacted fæces was a large tumor, occupying the hollow of the sacrum, and situated between the rectum and vagina. It was incompressible, and could not, by any effort that I could make, be displaced. After this examination, I was convinced that delivery could not be accomplished by the natural efforts, until the tumor had been either reduced in its bulk, or pushed up above the brim of the pelvis. As I could not displace it, and as it was impossible for me to decide with any degree of certainty on its nature or contents, I determined, before taking any further step, to try the effect of puncturing it. Accordingly, I obtained my trocars, and after emptying the bladder, I passed one, through the rectum, into the tumor. On withdrawing the stilette I was much gratified to see that fluid escaped. About eight ounces were drawn off, which upon examination proved to be the gruel-like matter of an atheromatous tumor. In about an hour after the operation, my patient was delivered of a male child, rather under the average size. She recovered without a bad symptom. On the fourteenth day after delivery, I made a careful examination both of the vagina and rectum, but could find no trace of the tumor I may state that Mrs. T. assures me, that except a slight difficulty in passing her fæces, she had no symptom whatever of the presence of the tumor. She is a tall, well-made woman, and has always enjoyed good health

There are many cases of pelvic tumors containing liquid or soft contents, scattered through the pages of the medical journals. One of the most interesting that I can call to mind at this time, is that reported in the Med. Rep. for 1826, by Mr. Jackson. The tumor, which was very large, was situated *behind* the rectum, and so completely filled the sacrum, as only to allow of bringing down the child by the feet with great difficulty. An examination of the rectum after delivery, ascertained the existence of fluctuation between the rectum and coccyx; the tumor was punctured, and six pints of straw-colored fluid drawn off. The patient recovered completely, but experienced much suffering from tenderness of the vertebra, pain of the head, and numbness of the lower extremities. It would appear from these symptoms, that the collection, in this case, was connected with the sacral portion of the spinal cord. Several cases of pelvic tumors containing fluid may be found in the second volume of the Med. Chir. Trans., related by Mr. Park. Dr. Merriman likewise published a paper on the subject, either in the eighth or tenth volume (I forget which) of the same work. For a more detailed account of the subject, I must refer to systematic works on midwifery.

On the use of Acetone or Wood Naptha in Cholera. By Henry T. Child, M. D., Philadelphia.

To the Editors of the Medical Examiner:

Gentlemen:—I beg leave to lay before you and the Profession, a few remarks in relation to the treatment of Cholera. During the last week I have had nine cases under care; and to illustrate the plan of treatment I will give an account of several cases.

The first was J. S., laboring man, aged about 40; strong constitution, and rather corpulent. He had had diarrhœa for five days, and on the 22d of last month, four days after the commencement of the diarrhœa, he walked about 20 miles. On the 24th I saw him, and prescribed a pill of camphor, opium and kino, which appeared to check the diarrhœa; but about 10 P. M., he was attacked with profuse watery diarrhœa and vomiting of "rice water," and when I saw him at one A. M. on the 25th inst. he had discharged between two and three gallons of serous fluid; the pulse was very

small and corded; the hands and countenance shrivelled, eyes sunken. I gave him fifteen drops of acetone or wood naptha, and the vomiting, which had been incessant, ceased immediately, and did not return; he then had ten grains of calomel every hour for six hours. At this time the discharge from the bowels began to assume a greenish color and to diminish in quantity; the secretion of urine which had been arrested for twenty four hours returned, and he was convalescent; his recovery was rapid.

The second case was the Rev. H. C. Shelton of Ohio, aged 50, who was at a private boarding house in this city. He had diarrhœa for six hours before I was called to him. At this time it assumed the characteristic "rice water" appearance, and there was vomiting of a similar fluid. He took fifteen drops of the naptha and ten grains of calomel every hour—that is, one dose each half hour. The vomiting ceased immediately, and did not return; and in three hours he had bilious discharges, and the secretion of urine, which had been very much diminished, returned; in three days he was able to go out.

The third case was A. G., aged about 30—had had diarrhœa for two days; was under treatment of a physician. I was called in haste to see him. I found him in a profuse cold perspiration, no pulsation perceptible at the wrist. Countenance and limbs shrivelled, and already blue—in short, all the symptoms of fatal collapse. I gave him a *teaspoonful* of naptha, and in fifteen minutes gave fifteen grs. of calomel, with directions to repeat the dose every fifteen minutes, and was obliged to leave him. The next day I found him convalescent.

The fourth case, M. F., married, mother of four children, was delivered on the 27th inst. of a female child, and was very comfortable until the morning of the 30th, when she was suddenly attacked with watery diarrhœa and nausea. I gave her the naptha, in doses of ten drops, and calomel in five grain doses every hour. "Rice water" discharges continued for twenty-four hours, but the discharges assumed a green color, and she is now convalescent.

I am not prepared to explain the operation of the naptha, but as the result has been so satisfactory in all the cases that I have treated, I desire to call the attention of the profession to it. Of the calomel treatment little need be said, as the object is to restore the secretions as speedily as possible, and to equalize the circula-

tion; and it is probable we have nothing in the pharmacopœia that is so likely to produce these effects as calomel.

Philadelphia, 7th mo. 2d, 1849.

Resumé of some Experiments to determine the quantity of blood in the body. By James Blake, M. D., F. R. C. S. E., *Professor of Anatomy in St. Louis University.* (Communicated in a letter to Prof. Dunglison.)

The experiments were performed by injecting a weighed quantity of sulphate of alumina into the veins, and analyzing a weighed portion of the blood. As the salt had time to be well mixed with the blood before the animal died, such an analysis would enable us to determine the whole quantity of blood with which the salt had been mixed. The only error which might arise would be from a portion of the salt having combined with some of the tissues, or having been rapidly excreted, and thiswould only affect the result in one direction, viz. in furnishing a greater quantity of blood than really exists.

The results of my experiments would lead to the conclusion that no such source of error exists, as I find by this method that the weight of blood in the body of a dog does not amount to more than between one-eighth or one-ninth part of the weight of the animal, an estimate much lower than that which is generally received as the quantity of blood in an animal. That this, however, is nearer the truth, is probable, from the consideration of the velocity of the circulation and the capacity of the heart, as on the generally received opinion on the quantity of the blood, it is difficult to imagine how it can circulate so rapidly.

Report of several cases of Asiatic Cholera successfully treated by Chloroform. By Dr. Anthony Bournonville, Philadelphia.

Case 1. J——, living in the city, was seized during the night of the 14th of June, with vomiting, and purging of rice-water-like discharges, severe cramps in his stomach and calves of legs, tongue cold, pulse very small and feeble and slow, extreme prostration; complained of excessive thirst and burning heat of his stomach; skin presented a peculiar shrivelled appearance and doughy feel.

Treatment.—I administered at once chloroform *m.* vj., turpentine

gtt. 40, in a glass of brandy and water, and repeated the dose in a half hour with happy effect; the vomiting and cramps ceased entirely after the second dose; sinapisms were applied to the calves of legs and stomach; he was well rubbed with cayenne pepper and brandy; the remainder of the treatment consisted of a mixture composed as follows, of which he took a tablespoonful every hour or two according to circumstances.

℞.	Aquæ Camphorat.	℥iij.
	Sol. Morph. Sulphat.	℥ss.
	Spts. Lavend. Comp.	ʒiij.
	Syr. Sacchar.	℥ss.

M.

At the same time the patient took small pieces of ice, and very cold water in small quantities, as often as desired. As soon as the chloroform and turpentine were administered, the patient revived, not entirely however until the second dose was given; the heat of surface gradually returned; the pulse slowly increased in strength and frequency; the extreme prostration disappeared. I left the patient in a very comfortable situation an hour after first seen. The next day the patient expressed himself well, with the exception of being very weak; tonics were prescribed, and the patient was entirely well on the third day.

Case 2. George C——, undertaker, Vine and Fifth streets, was called upon to lay out for burial a patient who had died of Asiatic cholera. C. returned to his work after he had finished, took a glass of beer, and soon after was obliged to go to the privy, where he had a succession of copious watery evacuations. On passing through the yard to go into the dwelling house, he fell prostrate on the pavement, stiff, cold as ice, cold perspiration flowed freely from his body, (melting as it were) pulseless, skin shrivelled, extremities in less than half an hour were perfectly blue to his knees and elbows; tongue cold, breath cold, eyes sunken with livid circles about them, lips blue, excessive cramps in the stomach feeling like knots, nose contracted, ghastly appearance.

Treatment. Chloroform *m* vj. turpentine gtt. 40, were given in a glass of brandy and water, which caused immediate partial revival; the patient expressed himself much better; in half an hour the dose was repeated, which caused entire revival. Sinapisms were applied to the calves of the legs and stomach, was well rubbed

with cayenne pepper and brandy, mustard and cayenne pepper, flowers of sulphur, heated bricks were applied to various parts of the body; ordered afterwards the following mixture, of which he took a teaspoonful every half hour.

℞. Chloroform,* gtt.xxx.
Water, ℥ij.
Mix.

Saw the patient two hours after, pulse good but rather feeble, heat of surface gradually returning; no cramps, no nausea; extremities of hands and feet still blue; face presenting a natural appearance; prescribed calomel, grs. v., inspissated ox gall, grs. x., made into four pills, of which he took two at once, and repeated two hours after, these produced good bilious evacuations; the rubbings were continued to hands and feet. The next day I found the patient much better, the blueness had entirely disappeared, the pulse stronger, some slight excitement present, some difficulty of breathing, slight congestion of the lungs. He was bled, and on the fourth day was entirely well with the exception of debility, for which quinine gr. ss. every half hour was given, with other tonic treatment. The patient is now well.

Case 3. W——, Callowhill above 13th, laboring under Diarrhœa of some days standing; was seized on the night of the 27th of June, at 11 o'clock, with vomiting, and purging of rice water-like discharges; excessive cramp in stomach. A physician in the neighborhood was called in, who prescribed the remedies proper for symptoms then presenting themselves; the vomiting and purging continued at intervals during the night; cramps in the legs ensued. I was sent for next morning, and arrived there at 9½ o'clock, not knowing that a physician was in attendance, and not thinking to ask in the hurry of the moment, and having attended her family for 18 years, I prescribed. I found the patient cold, pulseless, cramped in the stomach and legs, vomiting and purging incessantly; tongue cold, breath cold, blue and shrivelled appearance of arms and legs, contracted features, sepulchral voice, burning heat at stomach:—in fact, presenting to my view one of

*The Chloroform mixture is prepared some few days beforehand, as follows:—thirty drops are dropped into a two ounce vial, which is afterwards filled with warm water, and tightly corked—this is allowed to cool; before giving the necessary dose be careful to shake well the mixture.

the most malignant cases of Asiatic cholera, in a collapsed state, that I have ever seen; the cramps in the legs were most violent, causing the muscles to contract violently and feel as hard as a board. Treatment:—I administered (without any hope of success) chloroform *m.* vi. turpentine gtt. 40 in a glass of brandy and water, which caused the vomiting and purging to cease at once; the cramps were not relieved; sinapisms—rubbings were ordered as in other cases above mentioned. She refused by signs to take any more of the remedy; her powers of nature being exhausted, she died a few hours after.

Case 4. Mrs. R. ——, Front St. opposite Peg, keeper of a vegetable and meat shop, living in a dirty house, kept constantly damp by frequent drenching of floors with water, and the atmosphere rendered foul by exhalations arising from decayed vegetable matters, was taken on the 26th June with diarrhœa, which she allowed to run on for a few days before she sought medical advice. On the 28th I was called in a hurry to see Mrs. R. whom I found laboring under severe diarrhœa with constant retchings, but no vomiting; she complained of rumbling pains in her stomach and bowels; pulse natural, temperature of body perfectly natural in every respect. The camphorated anodyne mixture, spoken of before, was given in tablespoonful doses every hour—the abdomen to be rubbed with a liniment composed of

℞.	Gum. Camphoræ	ʒi.
	Ol. Olivæ	℥i.
	Tr. Opii.	℥ij.
	Aquæ Ammoniæ fort.	℥ss.

M.

The remedies gave her no relief; the diarrhœa continued to a greater degree; the patient vomited the medicine; ordered injections of starch and laudanum, and prescribed one of the following pills to be given every two hours:

℞.	Hydrarg. C. Mitis.	gr. viii.
	Pulv. Opii.	gr. iv.
	G. Camphor.	grs viii.

M. Ft. pil. No. 8.

S. One every two hours.

No relief was experienced from these; vomiting and purging of rice water fluid ensued at short intervals; cramps in stomach

and legs; next morning I found her collapsed, pulseless; legs and arms blue to knees and elbows; skin shrivelled, doughy and cold as ice; respiration slow and sighing; breath cold; tongue cold; sepulchral voice; terrible burning heat in stomach.

Chloroform *m.* vj. turpentine gtt. 40, in a glass of brandy and water were given at once, and immediately rejected from the stomach; then gave her a tablespoonful of the following mixture every half hour for two hours, then every hour.

Chloroform,	gtt. xxx.
Aquæ Fontan.	℥ii.

M.

This had the effect of checking the vomiting and cramps—it also allayed the diarrhœa; the cold state continued; usual rubbings with cayenne and brandy; mustard and cayenne, flowers of sulphur, combined with sinapisms to legs and stomach; warmth by means of heated bricks moistened with vinegar were resorted to without benefit. For the burning heat of stomach small pieces of ice were given at short intervals: no nourishment of any kind allowed. The chloroform was grateful to her stomach, and afforded her immediate partial relief. The chloroform was continued as above for two days, the diarrhœa, vomiting and cramps, in the meanwhile, ceased entirely, but still the patient remained in a collapsed state. At the expiration of this time, calomel grs. v. inspissated ox gall grs. x., made into four pills were ordered, of which she took two at once, and repeated two hours after. These produced good bilious stools; she expressed herself much better, but was still in a collapsed state. The next day the diarrhœa recurred, with pains in her stomach; the chloroform mixture was again resorted to in tablespoon doses every hour. The pains ceased, diarrhœa still continued, for which injections of pulv. opii. grs. ii. plumb. acet. grs. x. were ordered, and the chloroform mixture continued; the diarrhœa ceased; patient expressed herself much better after each dose of the chloroform. She remained in a collapsed state the greater part of five days; at the end of the fifth day violent reaction ensued, the face lost that ghastly appearance and blueish hue; became flushed and full; the eyes became prominent and bright; pulse increased in fulness and frequency. The chloroform mixture was now discontinued, and in its place ordered liq. anod. Hoffman ℥ss., spts. ammoniæ aromat. ℥i.

twenty-five drops to be given every two hours in sweetened water. The next day patient relapsed; pains recurred; diarrhœa of a light chocolate color continued; the chloroform was again resorted to in the usual dose; injections of acetate of lead and opium in same proportions as above were given. The pains were relieved; the diarrhœa ceased; reaction recurred to a proper extent; the extremities became warm; the blue and shrivelled appearance disappeared; the pulse became fuller, quite regular, but very feeble; the face resumed a natural appearance and expression; the respiration became more regular; the chloroform mixture was now given in more moderate doses (teaspoonful every hour) and ordered calomel gr. $\frac{1}{4}$, opium gr. $\frac{1}{4}$, every two hours for sixteen hours. The bowels became costive, relieved by ol. ricini ℥ss. Ever since she has been taking quiniæ sulphat gr. ss. every two hours, combined with other tonic treatment and is now rapidly recovering.

[It may be well to observe that this remarkable case was visited several times daily by my son, Dr. Aug. C. Bournonville, as well as by many of the neighbors, who all manifested a lively interest for the recovery of Mrs. R ——. The patient is now (July 20) perfectly well.]

Case 5. R ——, Chestnut and Second sts., was attacked with slight diarrhœa, with rumbling pains in stomach, for which I prescribed the camphorated anodyne mixture, sinapisms, frictions, &c. as in other cases. These gave no relief; the next morning she was seized with vomiting and purging of rice water fluid; cramps in stomach; no cramps in legs; pulse scarcely distinguishable; temperature of body reduced; cold tongue; slight blueness of extremities; respiration slow and sighing. I gave her at once a tablespoonful of the chloroform mixture (gtt. xxx. to ℥ii.) and repeated in half an hour; this caused the vomiting and cramps to cease at once; the patient revived and expressed herself much better; the pulse increased in frequency and strength; the surface of the body became warmer; the blueness of extremities gradually disappeared; the chloroform was continued for two days together with anodyne injections; the diarrhœa and vomiting ceased; at the expiration of this time the chloroform was discontinued, and in its place cal. gr. v. inspis., ox gall grs. x., made into four pills; two to be taken at once and repeated two hours after, were ordered;

no action of the bowels ensued; a dose of castor oil with laudanum was given; diarrhœa and pains slightly recurred; gentle anodyne mixture and injections were prescribed; these gave no relief; the pains increased, and retching ensued. The chloroform mixture was administered with decided relief, and continued in teaspoonful doses every hour; the pains and diarrhœa ceased entirely. The bowels became costive, remedied by injection of salt and water; the evacuations became regular, and of good color; the chloroform was discontinued; quinine and other tonic remedies prescribed, and the patient is now well.

Case 6. U——, N. Tenth above Race st., was seized early in the morning with vomiting and purging; with cramps in the stomach and legs; great prostration; temperature of body reduced; the evacuations were copious, and of a very light chocolate color; pulse slow and feeble. The chloroform mixture was again used in this case in tablespoonful doses, repeated in half an hour. The symptoms were relieved at once; sinapisms, &c., were used as in other cases. The mixture was continued in teaspoonful doses every hour; the next day the patient had entirely recovered from all the symptoms with the exception of the debility, for which quinine and other tonic remedies were prescribed. In a few days the patient had entirely recovered.

Case 7.—G——, living in the same house (Callowhill above 13th,) in which W——, case 3, died, was attacked with diarrhœa and rumbling pains in his stomach and bowels, and considerable feeling of weakness. For these he resorted to various remedies suggested by friends. A few days after, I was called in a hurry to see Mr. G.; found him vomiting and purging; the dejections from the stomach were slimy, those from the bowels rice water-like; complained of severe cramp in stomach and legs; very much prostrated; tongue cooler than natural; extremities slightly blue; pulse very small and feeble; respiration oppressed; surface of body cooler than natural. After the vomiting ceased there were constant retchings. The chloroform mixture was administered in the same dose and with the same results as mentioned in other cases; the mixture was continued for two hours; frictions, sinapisms and other measures were resorted to as in other cases above mentioned. Pills of camphor, opium, and capsicum were given every other hour alternating with the camphorated anodyne mixture

mentioned before. Slight diarrhœa continued, with much pain, for which the chloroform was ordered. The second day after, he was well, with the exception of debility, for which tonics were prescribed.

Case 8. C——, N. 3d above Tamany st., was seized in the street with cramps in stomach and calves of legs, with constant vomiting and purging; pulse very small and feeble; skin cooler than natural; patient very much prostrated. He was taken into an apothecary's shop, where laudanum was administered. The vomiting continued; his friends desired that he should be taken to the Hospital in the immediate neighborhood; the patient however, desired that I should be sent for; I arrived as soon as possible, and found him as above described. The chloroform mixture was given at once in tablespoonful doses, and repeated in half an hour with decided relief. Frictions, &c. were made use of; the mixture was continued in teaspoonful doses every hour after. The next day I found the patient doing very well; tonics were prescribed, and patient in a day or two was entirely well.

Cases treated by Aug. C. Bournonville.

Case 1. Henry R——, constable, aged 42. Habits intemperate; was laboring under diarrhœa for several days; attended a 4th of July dinner; was seized on the 5th of July at 9½ in the morning with vomiting and purging of rice water fluid; cramps in stomach, legs, and arms; body perfectly cold—pulseless; extremities blue and shrivelled; blueness under eyes; lips blue. I was sent for, but was not at home at the time. Drs. Sargent and Wilson of the Cherry street Hospital were called upon; they visited the patient at his house, and found him in the condition above described; injections of tr. opii ℥i. were given; mustard sinapisms were applied to the calves of legs and stomach; external warmth by means of heated bricks was resorted to; ferri sulphat. gr. i., quiniæ sulphat. i. gr. every hour were ordered to be given. Drs. S. and W. left him at the end of an hour worse than when first seen; tongue cold, breath cold,—in fact perfectly collapsed. As soon as I returned home I called upon R., found that he had been prescribed for, and retired. I was sent for at 3 o'clock with a message saying that the patient was dying. At this time found the patient in violent cramps of stomach and calves of legs and fingers; breath

cold, tongue cold, hands and feet blue; complained of excessive burning heat of stomach; respiration oppressed and sighing; action of heat very feeble.

Chloroform *m.* vi. turpentine gtt. 40, in brandy and water, were given at once and repeated in half an hour; sinapisms to legs, arms and stomach; frictions with cayenne and brandy. The chloroform mixture (gtt. xxx. to aq. ℥ii.) was then given in teaspoonful doses every half hour. I remained with him an hour and a-half, at the end of which time the patient expressed himself better; the cramps in stomach, and nausea had left him; the cramps in legs had moderated; the sinapisms to the calves of legs had acted slightly; the respiration was easier; the pulse was scarcely distinguishable. Ice and brandy were given at intervals, frictions continued.

At 5½. Patient expressed himself much better. Gave calomel gs. v., ox gall grs. x., made into four pills, two at once, and repeated in two hours.

At 6½. Found him worse; pulseless, uneasy, action of heart excessively feeble; continued chloroform mixture in tablespoonful doses, every half-hour; brandy and ice at short intervals.

At 7½. Patient, to use his own words, expressed himself "much better, with exception of cramps in fingers;" head, neck, legs and stomach warm; pulseless; respiration easy; arms perfectly cold and blue.

At 9½. Found him in frightful cramps of the whole body; legs drawn up, respiration gasping; patient continued thus until he died at 11¾ P. M.

Case 2. Mrs. R——, aged 34—U. S.—temperate—married; was seized at 6½ o'clock A. M. with vomiting of slimy matter, purging of rice water fluid, cramps in stomach and legs, and one arm; constant disposition to vomit afterwards; very much prostrated; pulse small and feeble; action of heart regular; respiration rather slower than natural; temperature of body and tongue reduced.

I gave chloroform mixture, tablespoonful at once, and repeated in half an hour; this dispelled the nausea at once; the cramps were moderated; the patient expressed herself much better, and when asked remarked that as soon as she took the mixture, she experienced a cordial heating sensation in the stomach, which diffused itself throughout the body; discontinued the mixture, and gave the

anodyne camphorated mixture mentioned heretofore ; tablespoonful every hour ; saw the patient two hours after, found her much better ; warm perspiration, very feeble, respiration easier, pulse good, bowels opened twice, and evacuations of a light chocolate color ; no cramps since ; continued the camphorated anodyne mixture.

Saw her in the afternoon ; slight nausea, occasional slight cramps in her legs ; sense of coldness ; pulse good ; chloroform mixture was given in teaspoonful doses every hour ; continued the other mixture ; next morning found her much better ; no cramps, heat of surface natural ; slept well during the night ; pulse regular but very feeble ; quiniæ gr. ss. every hour and other tonic remedies ordered. Ten days after, entirely well.

Case 3. Mrs. R——, aged 65, U. S. ; temperate ; shop-keeper, mother of cases first and second ; was taken with diarrhœa of a light color and watery ; pulse feeble ; prescribed camphor, gr. i., opium, gr. ss., acetate of lead gr. i., every hour ; diarrhœa ceased in four hours ; continued with the camphorated mixture in teaspoonful doses every hour. At twelve of same night, patient was seized with vomiting and purging of rice water fluid, cramps in stomach and legs, body perfectly cold, pulse scarcely perceptible, fingers shrivelled. The chloroform mixture was given in tablespoonful doses, every half-hour ; sinapisms were applied to legs and stomach. In half an hour expressed herself much better ; in less than half an hour the nausea disappeared, the heat of surface returned, the cramps were relieved, the pulse increased in frequency and fulness, body bathed with warm perspiration. I may add, however, that the first dose was rejected with other fluids from the stomach ; the dose was given as soon as the vomiting ceased, and continued every half-hour for two hours. The chloroform was then discontinued, and the camphorated mixture given instead, tablespoonful every hour.

In the afternoon of same day, prescribed calomel, gr. $\frac{1}{4}$, op. gr. ss., pulv. rad. ipecac. gr. $\frac{1}{4}$, every two hours ; this was rejected ; slight cramps in stomach recurred ; slight nausea ; discontinued powders and gave chloroform mixture, teaspoonful every half-hour at first, and afterwards every hour, alternating with the camphorated mixture ; next day prescribed quinine gr. ss. every hour, and other tonic remedies, and is now slowly recovering.

BIBLIOGRAPHICAL NOTICES.

Cyclopædia of Anatomy and Physiology. Edited by Robert B. Todd, M. D., F. R. S., &c., &c. 8vo. Parts XXXIV. and XXXV. January and March, 1849.

Cours de Physiologie fait à la Faculté de Médecine de Paris. Par P. Bérard, Professeur de Physiologie a la Faculté de Médecine de Paris, &c., &c. 8vo. 9 livraisons. pp. 744. Paris, 1848.

Handwörterbuch der Physiologie mit Rücksicht auf physiologische Pathologie, u. s. w. herausgegeben von Dr. Rudolph Wagner, Professor in Göttingen. 8vo. 18, 19, 20 Lieferungen. Braunschweig, 1848–9.

Lehrbuch der Physiologie des Menschen für Aerzte und Studirende. Von Dr. August Friedrich Gunther. 1 Band. 8vo. Enthaltend die allgemeine Physiologie. S. 660 Leipzig, 1845. 2 Band. 1. Abtheilung. Enthaltend die specielle Physiologie. S. 304. Leipzig, 1848.

Lehrbuch der Physiologie für Studirende und Aerzte. Von D. Arnold Adolph Berthold, Königl. Hannoverschen Hofrathe, u. s. w. Erster Theil, enthaltend die allgemeine Physiologie. 8vo. S. 382. Zweiter Theil, enthaltend die beersonde Physiologie. S. 640. Göttingen, 1848.

The Chemistry of Vegetable and Animal Physiology. By G. J. Mulder, Professor of Chemistry in the University of Utrecht. Translated by Dr. P. F. H. Fromberg, with Introduction and Notes by James F. W. Johnston, F. R. S. L. & E. With twenty illustrations, colored and plain. 8vo. pp. 850. Edinburgh, 1849.

It is not long since we took occasion to bring to the notice of our readers the American reprint of the "Handbook of Physiology," by Messrs. Kirkes and Paget, the primary object of which—as stated by its authors—was "to give such an account of

the facts and generally admitted principles of physiology as may be conveniently consulted by any engaged in the study of the science: and more especially such an one [a one] as the student may most advantageously use during his attendance upon lectures, and in preparing for examinations."

With similar objects have two of the works before us—those of Messrs. Gunther and Berthold—been undertaken, and they are calculated to serve the same purpose with the German student, that the work of Messrs. Kirkes and Paget serves with us, and wherever the English language is the vernacular. There is this manifest difference, however, between the English and the German authors, that whilst the former—owing to their acquaintance with the German language—have been enabled to obtain the information, which they cite, directly from the sources; the latter, owing to their want of knowledge of the English language, have derived their scanty knowledge of what has been done by the Anglo-Saxon from translations only. Hence the work of Messrs. Kirkes and Paget is more cosmopolitan in its character.

The *Livraisons* of the *Cours de Physiologie* constitute but one volume of the "Course." Five of the nine are occupied wholly with prolegomena; comprising an inquiry into life; the sources of our knowledge in Physiology; its utility; a parallel between living and brute bodies, and between animals and vegetables; the organization of animals; the humours; functions; a comparison of animals amongst themselves; and of man and the different races of men.

The seventh, eighth, and ninth *livraisons* are occupied with digestion, the last of them ending—and with it the first volume—with insalivation. From this, the probable extent of the work may be judged of. It is exceedingly diffuse: topics are discussed and details given, which it must be impossible for any student to carry away with him; and on the whole we rise from the examination of the lectures, thus far published, with the firm conviction, that for real utility, the less full—less *complete*, if the epithet be preferred—courses on physiology given in this country are—to say the least of them—*as* beneficial to the student as the elaborate and involved course delivered in the Ecole de Médecine of Paris. It must be admitted to be a fault in the lecturer on any subject to attempt to exhaust it. It is a grievous error, we think, to load it

with matters that are of doubtful relevancy, and cannot possibly be retained by the hearer; and whilst, therefore, we would disapprove of the material before us having been delivered as lectures, we can still recommend that it should be studied at home; and are thankful to M. Bérard for having afforded us a useful book of reference on many biological topics for the shelves of the library.

The remainder of the works whose titles are at the head of this article are more adapted for the deep and thorough investigator of Biology. The Cyclopædias of Todd and Wagner have been extolled already in the pages of this journal, and the extensive use made of them by every well informed writer sufficiently attests their estimated value. Each article is assigned to some co-laborer who has made the subject a special department of study, and the very assignment has in many cases given occasion to renewed investigation by experiment and otherwise; and, accordingly, the articles in both works may be regarded as embodiments of the existing state of knowledge on the subjects on which they treat.

It may be sufficient for us, after these merited encomiums, to enumerate the subjects and their respective and respected authors in the parts of both works recently received, and now before us.

Parts 34 and 35 of the Cyclopædia of Anatomy and Physiology, contain the conclusion of an article on Secretion by Dr. Carpenter; Semen, by Drs. Wagner and Leuckardt; Sensation and Sensibility, by Dr. Todd; Serous and Synovial Membranes, by Dr. Brinton; Sesamoid Bones, by Mr. S. R. Pittard; Seventh Pair of Nerves, by Dr. Brinton; Shell, by Dr. Carpenter; Shoulder Joint, by Dr. McDowel and Mr. Adams; Sixth pair of Nerves, by Dr. Brinton; Skeleton, by Mr. Maclise; and Sleep, by Dr. Carpenter.

The 18th, 19th, and 20th parts of the "Dictionary of Physiology" of Wagner contain:—Synovia, by Prof. F. M. Frerichs; Temperament, Physiognomy, and Cranioscopy, by Dr. E. Harless; Secretion of Tears, by Prof. Frerichs; Transudation and Endosmose, by Dr. Vierordt; Digestion, by Prof. Frerichs; Physiology in its application to Opthalmology, by Prof. Ruete; Disease, by Prof. Hasse; Physiology in its application to Surgery, by Dr. Kohlrausch; Waking, Sleep, Dreaming, &c., by Prof. Purkinje.

Lastly:—the work of Mulder comes to us with all the authority of a master in chemistry, if not in biology:—the renowned rival of

his brother in science at Giessen :—" brother in science," but by no means in feeling on the interesting matters on which both are engaged. It has been painful, indeed, and injurious to the great cause of whieh they are ornaments to witness the controversial spirit they have exhibited towards each other.

Mulder's work is rich in information to the chemist and physiologist, and is eminently worthy a place in the library of the advanced student.

It is pleasing to observe the absorbing interest felt at this day in the investigation of physiological subjects. Physiology and its twin sister pathology, ought to be studied from the first entrance of the student on the threshold of medical science. Careful observation of phenomena, and a rigid deduction of laws from a consideration of phenomena, characterize the man of science, and distinguish him from the empiric—we use the word in a good sense, as it was employed of old ;—and there are no subjects of science the study of which more signally discipline the mind than the two in question. It is, indeed, to a want of proper mental discipline, of an observance of the strict rules of logic, and to deficiency in physiological and pathological knowledge, that we must ascribe the hasty inferences from isolated facts, in place of sound generalizations formed from a wide and extended view of all the ramifications and bearings of a subject, that we owe those hypothetical assumptions, and absurd modes of management founded on them, that for a while agitate many of the profession, and more of the laity, then sink into insignificance and oblivion, but still add to the numerous examples which the world are disposed to bring forward of the uncertainties of medical science.

When wide spreading sickness assails a community, any proposition that may seem to have the slightest authority in its favor is clutched with avidity ; and, too often, the mercenary and the designing, for unworthy purposes, and the enthusiastic but deluded with the best of motives, appear before the public with propositions, many of which are ridiculous, others plausible but unsupported by observation ; and in this manner more real injury is inflicted on the profession, than could be by its most prejudiced and hostile denouncers.

Witness the sensation recently created by the idle statement in regard to the prevalence of ozone as a cause of cholera. That it may

have been indicated in some places, in a greater amount than usual, when cholera prevailed, we do not mean to contest; but when a wide view is taken, we find, that where the disease was most disastrous, reagents did not in the least indicate its presence. Yet, to cap the climax of absurdity, pills of sulphur and charcoal have been proposed by a member of the profession as neutralizers of an atmospheric condition, of which we know scarcely anything; which was not shown to exist in undue amount, and, as we have said, has been certainly proved to be non-existent where the mortality from cholera was excessive: and even were its presence demonstrated, is it shown that either sulphur or charcoal could diminish its amount? and were it so shown, what could be the beneficial effect of a few grains of either swallowed by a patient? We notice the absurdity only because the uninformed, professional and unprofessional, have believed, that there was some foundation for the idle advertisements of ignorant, and we fear, designing persons, against the reception of whose assertions, proper habits of observation and reflection would have effectually steeled them.

Similar remarks may be made on the notion, that an absence of electricity in the air is a cause of cholera. That there has been such apparent absence in many cases where cholera has prevailed is unquestionable. The unfrequency of thunder in this city for the last few months has been a common subject of remark, but it is as unquestionable, that such unfrequency has existed where no cholera prevailed; and, consequently, something more is necessary to cause it: and, moreover, in many places thunder storms have been common, whilst the disease was sweeping off unusual numbers. We are therefore justified, we think, from an examination of the occurrence of the disease on a large scale, in according with a recent writer, that the conditions, which favor the development of cholera, are comparatively independent of temperature, barometrical changes, and atmospheric vicissitudes. Generally, its inflictions have been most severe during the warmer months; but in Moscow it raged during the rigor of a Russian winter, and passed away on the return of mild weather. The history of the recent visitation in New Orleans is also full of interest in this relation.

But we do not intend to enter into the various anomalous positions that have been assumed in regard to this singular pestilence.

Hereafter we may take up the subject, and endeavor to demonstrate, that a number of "vulgar errors" prevail even amongst the profession, connected with the influence of atmospheric temperature, particular kinds of diet, &c., &c. A more fitting time for such a discussion will arrive when existing agitations have passed away; and a cool review can be made of the whole subject. The object with which the allusion to cholera has been made by us was to deplore the crude deductions unadvisedly put before the profession and the public in periods of agitation and alarm, and to express our conviction, that the mind properly disciplined in the kind of reasoning which physiology so eminently demands and fosters, would at once discover the fallacy of such deductions: and the same kind of mental training would make the philanthropist pause before he committed himself and his profession by their too hasty promulgation.

Speeches of Defendants' Counsel, and the Charge of Judge Burnside, in the case of Hinchman vs. Ritchie, et. al. Philadelphia, 1849. pp. 176.

This pamphlet contains a full and accurate report of the arguments adduced by counsel, to defend a body of respectable citizens from the serious charge of a conspiracy to deprive a man of his liberty and property under the plea of insanity. The parties arrayed against each other in this extraordinary cause, were closely allied by the ties of nature—the son appears against his mother, the husband against his wife, the brother against his sister, the paternal relatives of the prosecutor against his maternal relatives, and the mutual friends of each testify upon opposite sides. The prosecutor alleges that while in the exercise of his lawful business, coming to Philadelphia from the country, to dispose of the produce of his farm, he was seized in a clandestine manner by the defendants, who had arranged a plan beforehand for capturing him, and conveyed, without his consent, in his own wagon to an insane asylum, and there incarcerated without just cause for a period of several months. That shortly after his confinement a commission of lunacy was taken out, and his property passed into the hands of others, to his great loss and detriment. After being discharged from the institution as a sane man, he appeals to the law for re-

dress, and brings suit for damages against the parties concerned in placing or keeping him there, including all his nearest relations, several intimate friends, the physician who gave the certificate, the medical attendant of the hospital who had charge of him after his admission, and his family physician, who advised him to yield to the wishes of his relatives, and was present when he was taken to the institution: in all, fifteen persons.

To sustain the charge of conspiracy, the plaintiff first attempted to prove his sanity by a large number of witnesses, who were his neighbors or intimate friends. Some sixty or seventy persons testified that they had never observed anything strange or crazy in the plaintiff's conduct—some even declared that he was a remarkably shrewd, business man, smart and capable, &c., while it was agreed on all sides that he was not deficient in business capacity.

On the other side it was alleged that the plaintiff was subject to paroxysms of insanity; that there was on his part a "prolonged departure, without adequate or external cause, from the state of feeling and modes of thinking which were usual to him when in health," and a number of witnesses, some of whom were near relatives and intimate friends, were brought forward to testify to facts and circumstances which had convinced them that his mind was diseased. This testimony extended through a period of seven or eight years, and had reference to many circumstances in his private and domestic life, which induced his near relatives to think it advisable to place him under medical treatment in an insane asylum.

In doing so they alleged that they were solely influenced by motives of sympathy and humanity, and that they had applied to the persons now included with themselves in the charge of a conspiracy, for their friendly aid in effecting this object. The regular forms of admission were complied with: and the parties charged declared that they had no interest, pecuniary or otherwise, in the confinement of the plaintiff, farther than the restoration of his health, and the security of his remaining property for the benefit of his family.

In presenting this brief view of the position of the opposing parties, we only desire to state the points at issue so far as the medical bearings of the question are concerned. Upon the legal

points, and the various other matters with which the case is complicated, we do not feel prepared to comment.

The question of the insanity of a man, in which is involved the right to arrest and confine him, and to dispossess him of his property, is one of very grave import. It is one, the decision of which by the practice of this State, has been vested in his medical attendant. The certificate of the physician is here the groundwork of the proceedings whereby he can be thus confined; his signature is, in fact, equivalent to the commitment of the judge or magistrate in a criminal case. The responsibility here assumed by the physician is therefore of high importance, and should be exercised only after the most careful scrutiny into the history and appearances of the patient presented to his examination. So deep and mysterious are the workings of the human mind, and so disjointed may the social and domestic relations of life become, through the indulgence of improper passions, and the want of self-control, that nothing short of a conviction of a man's insanity, founded on the most satisfactory proof, should induce the physician to act as his committing magistrate.

Especially is this caution necessary in cases of partial insanity, where the individual himself denies that his mind is diseased, and where his ordinary course of conduct does not betray the existence of the malady to those with whom he is in daily intercourse, and where too he protests against being restrained of his liberty. Not that such persons do not require restraint, and that the exercise of a sound discretion on the part of the physician may not save them from violent and even hopeless mania; but in effecting it great circumspection should be observed, deception and stratagem should be if possible avoided, and the individual be approached with that regard for his rights and feelings, and that sympathy for his welfare, which might, if possible, secure his co-operation, rather than excite his enmity and opposition. The records of institutions for the insane would present many examples of individuals thus diseased, who have themselves been convinced of the necessity of being subjected to the influences which these excellent establishments exert, and who have voluntarily and even cheerfully entered them. The humane and enlightened spirit in which insane asylums are now generally conducted, have, in fact, robbed them of the terrors once attached to them, and have rendered them pleasant retreats from the excitement and

turmoil of the world, rather than the abodes of cruelty and misery. In the case before us, the ground was boldly assumed by the counsel for the plaintiff, that the exercise of the right to arrest and confine an insane person on the certificate of a physician, as this proceeding was not upon oath or affirmation, was contrary to the bill of rights, and a violation of the Constitution of Pennsylvania. But Judge Burnside, in charging the jury, negatived this proposition, and declared that the rule which had been practiced for the admission of insane patients into the Pennsylvania Hospital, half a century before the adoption of the Constitution, and which had been pursued by the Frankford Asylum since its organization, without being questioned by the framers of the Constitution, or by the convention for its amendment in 1838, gave full authority to this proceeding; provided it was proved that the man was insane. "The right to restrain an insane person of his liberty is found," as expressed by Chief Justice Shaw of Massachusetts, "in the great law of humanity." The duties and responsibilities of physicians continue, therefore, undisturbed by the decision of this case.

The next question is, how far medical men may render themselves liable to prosecution or annoyance, by the exercise of the prerogative which is thus imposed upon them? Heretofore, no apprehension seems to have been felt upon this point, and it is a remarkable fact, that during the long period in which the certificate of the physician has been considered as the warrant for the arrest and confinement of insane persons, no instance has occurred in this State of a prosecution against the medical attendant, except in the case now under review. In this case four physicians were included in the indictment for conspiracy, viz: Dr. Kite, who signed the certificate of admission; Dr. Griscom, the family physician of the plaintiff, who was present when he was taken, and who advised him to accompany the friends who had volunteered to convey him to the asylum; Dr. Evans, the attending physician of the asylum, under whose authority and advice he was restrained in the institution, and Dr. Worthington, the resident physician. Whether all these gentlemen were thus arraigned for the purpose of excluding their testimony upon the main point at issue, viz. the insanity of the plaintiff, or whether from the desire of convicting them as parties in a conspiracy, we shall not undertake to determine. Had they all been in the position of defendants during

the whole proceedings, it is evident that the most important link in the testimony upon which the accused parties relied would have been excluded, and their chances of conviction thereby greatly increased.

Application was made, however, in the early part of the proceedings, for the release of the physicians, which resulted in the discharge of Dr. Evans, who became an important witness in the case.

The three other physicians were still held accountable, and one of them, Dr. Kite, was actually convicted as a party in the conspiracy, and is now subject to the penalty imposed, unless the decision should be reversed by a higher court. Dr. Griscom, though not convicted, was subjected to the anxieties and annoyance of a protracted and exciting trial, and was held up to public censure by heated partizans, for having acted the part of a friend and counsellor to a man in whose welfare he had long been interested; and Dr. Worthington, who simply acted in the position of resident physician of the asylum, was subjected to like treatment, though he also escaped conviction.

Well might the learned judge remark, in charging the jury upon the cases of the medical defendants, that the conviction of either of these gentlemen "would deter physicians from giving these certificates, and have an injurious effect upon society." If physicians, acting in the capacity of advisers to those who apply to them for professional aid, oftentimes without pecuniary reward, and without their own seeking, are to be arraigned before courts of justice as malicious conspirators against the rights and interests of their patients, without the shadow of proof of evil intention or bad motives, and when in the legitimate exercise of those responsibilities which the customs of society and the laws of humanity have imposed upon them, they may indeed hesitate to subject themselves to this new species of martyrdom, in addition to those troubles which the exercise of their calling necessarily brings with it.

The true position of medical men in this relation, did not escape the notice of the counsel for the defendants. George Griscom, Esq., the attorney for Dr. John D. Griscom, has thus stated it.

"*Sixth.*—That the *professional advice*, or opinion of a physician, given to any one to whom he is called to give it, honestly and truly,

with intention to benefit the health of the person advised, without any other action on the physician's part (excluding the idea of malpractice, of course,) cannot, in any case, subject the physician to an action or damages."

To this Judge Burnside replies.

"*Answer.*—Undoubtedly, where a physician gives a certificate honestly and *bona fide*, he ought not to be subjected to damages."

In relation to the case of Dr. Kite an exception is made by the Judge in the following words:

"As for Dr. Kite if he were not in the original conspiracy, and gave a conscientious certificate, I would not hold him responsible ; nor do I see the legal principle upon which he can be convicted. His conviction would deter physicians from giving these certificates, and have an unhappy effect on society. But really did he give a corrupt certificate ? If the jury really believe that Dr. Kite did give a corrupt certificate it would materially alter the case, and there is one thing that makes against him : he stated, according to the evidence, that he had not seen the patient in four months ; this I think is the strongest feature in his case. The rulers of the institution do not require that the certificate should state when the examination, upon which it was based, was made. The British statute requires that the certificate should state when the examination was made, which must not have been made more than seven days previous to the date of the certificate ; and that two physicians must be present at the examination. If the managers of this institution would take my advice, they would adopt the provision of the British statute, and require that all examinations should be personal, and it should be stated on the certificate when they were made. However, gentlemen, it is for you to judge of Dr. Kite. For the mere giving of the certificate I would not find him guilty, unless you believe he certified falsely. If he acted conscientiously, I think he ought to be discharged."

This informality in the medical certificate is certainly to be regretted, and cannot be justified as a safe rule of action. The necessity of a personal examination at the time, or immediately preceding the signing of a paper from which such important results flow, is obvious, and might not, we think, be inappropriately required as a condition of its validity. But we cannot understand, how an inadvertence on the part of the physician in this matter, can justly subject him to an action for maliciously endeavouring to deprive a man of his liberty and property, when it is not alleged that he had any pecuniary interest to subserve, or any malice to gratify, by such act.

Another feature in this case which is interesting to medical men,

is the popular view of insanity, as revealed in the progress of this trial, and attested by the verdict of the jury, as distinguished from the medical or scientific view of the question, as sustained by the best medical observers and writers upon this disease.

The people and the profession are here at issue. The popular ideas of the nature of insanity, are so loose and indefinite, that in doubtful cases no positive information can be derived as to the state of a man's mind, from the testimony even of honest and intelligent witnesses. Capability in attending to the ordinary business of life, the power of maintaining a rational conversation upon a given topic, or the absence of violent fits of insanity before transient observers, are all regarded as proof positive of a man's sanity. Monomania, moral insanity, and various other aberrations of intellect, which are familiar to medical men, are not admitted by the public, who in this matter undertake to form opinions with as much confidence as the most acute physician. In the case of Hinchman, for instance, popular opinion attached much more importance to the testimony of his neighbors and friends, than to that of Dr. Evans, the only physician who, from his position, was enabled to give a decided opinion in the case; whereas, intelligent medical men would regard the opinion of Dr. Evans, stated as it was in a clear and lucid manner, and based upon sound medical views, of more value than that of a score of casual observers, who had no knowledge of the nature and peculiarties of this form of disease.

In the volume before us we find a full discussion of the question of insanity as affecting the intellect, feelings, and passions, in its relations to the case in hand.

The counsel for the defence appear to have studied this branch of their case with great care, and have presented an elaborate and able argument for the generally received medical doctrines upon this subject. The speech of Charles Gibbons, Esq., is especially full upon this point, and is replete with much valuable information, drawn from a variety of sources. We could wish that his brethren of the bar, and the intelligent masses generally, would read and ponder this address. As the matter now stands, it is essential for the ends of justice, that the public should be informed upon the nature and phenomena of insanity; and that they should be instructed in the various phases which it is constantly assuming.

In them the right to decide upon a man's mental condition, in cases involving life, reputation and property, is vested. Courts expound the law, and juries render the verdicts. They are often called upon to determine, where moral accountability ceases, and insanity begins ; what acts are the result of criminal and vicious propensities under the control of the individual, and under what circumstances the same acts are to be regarded as the offspring of an insane and uncontrollable impulse. These are serious questions which are continually presenting themselves in courts of justice, and in the decision of which momentous consequences are involved. Murder, arson, theft, and other grave crimes, are occasionally committed under circumstances in which the guilt of the perpetrator may be fairly questioned ; while in other instances the plea of insanity is set up without just cause, and as a means of shielding the criminal from the punishment which his crime merits. Insanity in its relations to penal law, is, in fact, one of the most perplexing and abstruse problems, which can occupy the minds of jurists and physicians. It is daily forcing itself upon public attention in a variety of forms, and is demanding a thorough examination. As an element in the administration of the law, modifying its penalties, and influencing its decisions, it cannot be too closely studied; but whether in the present state of our knowlege, settled principles could be fixed for the guidance of courts and juries, is at least doubtful. In our view the only tribunal, competent to decide upon these difficult questions, should be composed of medical men, whose positions familiarized them with insanity in all its protean forms, and who have made it an object of special study.

This class of physicians are to be found in most of the states of the Union, and a more intelligent and highly educated body of men than those who now manage the numerous insane hospitals of the country, do not exist in the ranks of any profession.

Let the law invest these gentlemen with powers which are now in the hands of judges and juries, and secure their aid and counsel in cases where insanity complicates its decisions, and one source of difficulty would be removed. In some of the states this course has been partially adopted. In Massachussets, for instance, a medical commission inspects the prisons, and decides upon the state of mind of such convicts as are considered of doubtful sanity, and their

is the popular view of insanity, as revealed in the progress of this trial, and attested by the verdict of the jury, as distinguished from the medical or scientific view of the question, as sustained by the best medical observers and writers upon this disease.

The people and the profession are here at issue. The popular ideas of the nature of insanity, are so loose and indefinite, that in doubtful cases no positive information can be derived as to the state of a man's mind, from the testimony even of honest and intelligent witnesses. Capability in attending to the ordinary business of life, the power of maintaining a rational conversation upon a given topic, or the absence of violent fits of insanity before transient observers, are all regarded as proof positive of a man's sanity. Monomania, moral insanity, and various other aberrations of intellect, which are familiar to medical men, are not admitted by the public, who in this matter undertake to form opinions with as much confidence as the most acute physician. In the case of Hinchman, for instance, popular opinion attached much more importance to the testimony of his neighbors and friends, than to that of Dr. Evans, the only physician who, from his position, was enabled to give a decided opinion in the case; whereas, intelligent medical men would regard the opinion of Dr. Evans, stated as it was in a clear and lucid manner, and based upon sound medical views, of more value than that of a score of casual observers, who had no knowledge of the nature and peculiarties of this form of disease.

In the volume before us we find a full discussion of the question of insanity as affecting the intellect, feelings, and passions, in its relations to the case in hand.

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report determines the continued incarceration of the subject, or his removal to an insane asylum.

If the same rule were extended to untried prisoners before conviction, and if conscientious and practiced physicians became the arbiters, under proper legal restrictions, instead of juries, we believe that society would be better protected, while individual rights would be rendered more secure.

The case of Hinchman, which has excited such extraordinary public interest, may have the effect of bringing about a renewed investigation on the part of competent persons, of the relations of insanity to the administration of the law, which shall ultimately lead to important changes in this branch of legal practice. Already the subject of the duties and responsibilities of physicians in this respect, is beginning to demand their serious attention, and at the last meeting of the National Medical Association at Boston, a committee was appointed to examine and report upon it. Upon this committee are several gentlemen widely known for their labors in the cause of the insane, and for the zeal and ability with which they have cultivated this department of medicine. From their united labors the profession and the public may anticipate a report of great value, which may serve as a guide for future action. Viewed in this light, the "Hinchman case" may not be without its uses; and when the private griefs and domestic calamities to which it has given rise are forgotten, it may be referred to as an important public trial which has called forth the discussion of great principles, and aided in the establishment of sound views upon an obscure and difficult subject, intimately connected with the welfare and happiness of the commonwealth.

Report on the Cholera in Paris. Published by authority of the French Government, translated from the original, and printed by recommendation of the Board of Health, and the Academy of Medicine, of the City of New York. New York: Samuel S. and William Wood, 1849.

The above report, one of the products of the international exchange, effected by M. Vattemare, was made by the direction of the French Government in 1832, immediately after the cessation of the cholera in the metropolis. The commission to whom

was intrusted the duty of preparing the report, consisted of men known throughout Europe and this country, and belonging to various learned and scientific bodies, and holding important official stations. Its republication at this juncture is an inestimable favor to all corporations and boards of health.

It will be seen that the report was prepared after the subsidence of the epidemic, when the violence of the disease had abated, and when no longer under the influence of *immediate* impressions, and more sure in their judgments, they were enabled to recur to what had passed, and direct attention to the examination of circumstances and localities, and to obtain such a precise account of the character and progress of the pestilence, as would serve, should it suddenly re-appear, to enlighten the present by the experience of the past; or to instruct for the future, should the disease make its appearance only at long intervals.

It will be seen also, that they have avoided all abstract theories, and confined their attention to the close examination of the circumstances under which the disease first made its appearance, and which accompanied its progress. Having no particular doctrine of *contagion* or *non-contagion* to support, they have not ventured to offer other than the most certain and legitimate deductions even from the facts observed and recorded by themselves.

Every circumstance bearing upon the subject has been examined with a minuteness and clearness of detail, that we do not remember ever to have seen excelled in any similar report. "The geographical position, and geological formation of the district of the Seine; the number and size of the streams by which it is watered; the extent of woods, or of roads, which diversify and traverse its surface in every direction; the dryness and humidity of the atmosphere; the nature of the winds usually prevailing at different seasons;—each and all of these became subjects of research, with the view of ascertaining how far, and in what manner, their influence was exercised on the pestilence which then raged.

From these subjects, the members of the committee necessarily passed to the consideration of others of equal if not greater importance: in what respect density of population, or the neighborhood of hospitals, slaughter houses, burying-grounds, manufactories, &c., operated on the increase or diminution of the disease;

how far it was modified by the ages, habits, pursuits, or trades of individuals; and lastly; what means were employed by the Government and its agents to avert the progress of the cholera."

The following summary of this model report will give our readers some idea both of the extent of the inquiries and the conclusions at which the commission arrived. We would, however, commend the whole paper to the careful study and imitation of all interested in this, at present, all absorbing subject.

1. The cholera appeared at one and the same time in Paris and in the rural communes of the Department; or, to be more positive, within an interval of 48 hours, from the 26th to the 28th of March.

2. In the country, as in the city, its developement, its progress, its periods of abatement or increase (recrudescence,) as well as its duration, have been similar.

3. In the country, as in the city, more women than men have died, but in the country the mortality of the females was one fifth greater than that of males, and comparatively larger than in Paris.

4. In the rural communes, as in the city, the ages that seemed most liable to disease and death, were first infancy, mature age, and senility; the period of human life that suffered least is that between 6 and 20; but in the rural communes, first infancy experienced relatively to other ages a greater loss than in Paris, and adolescence a lesser loss as well as persons advanced in life. Compared to the chances of ordinary mortality, the age between 30 and 40 is that which has presented every where the most unfavorable results.

5. The resistance of nature to the attacks of the disease, has been in a direct ratio to the strength that age offered, excepting however the period from 5 to 10 years.

6. It does not appear that the variations of the atmosphere exercised more influence on the activity or relaxation of the evil, in country than in town.

7. The total population of Paris lost

	18.402	persons, or	23.42	out of 1000.
Of the wards of Saint-Denis,	2,001	do.	21.03	do.
Of the wards of Sceaux,	1,385	do.	17 62	do.
Total in the whole Department,	21,514*	do.	21.75	do.

And if the rural communes suffered less than the capital, the recrudescence in July proved more fatal in them in proportion to the total loss.

8. The rural communes most exposed to the winds were most

* From the 1st of October, 1832, to the 1st of April, 1833, the number of persons, whose death has been attributed to cholera, was for Paris 714, and for the country 80; giving 22,308 victims, or 23.57 out of 1000 as the deaths by cholera from the time of its invasion in March, 1832.

assailed, but in Paris the central districts and narrowest and best sheltered streets, suffered most severely. Generally in the localities last mentioned, wherever a poor wretched population was crowded in filthy, contracted lodgings, the epidemic multiplied its victims.

9. In the rural wards, as well as in the capital, the cholera seems to have more specially struck at the professions that indicate least comfort, and above all at those which are exercised in the open air.

10. The excesses in which, too often, the working classes of Paris indulge on Sundays seem to have produced one-eighth of augmentation in the number of admissions to the hospitals on the Mondays following.

11. The mortality was less among prisoners than among other classes of the Parisian population.

12. The loss experienced in the hospices, taken as a whole, presents the same proportion, 64 out of 1000, that is presented by the deaths of the inhabitants of Paris of 60 years and upwards.

13. The military fell before the pestilence, both in Paris as in the rest of the Department, in the proportion of 25.66 out of 1000; a proportion which surpasses that of the civic population (21.83.)

14. Lastly, in places infected by putrid emanations, the cholera was neither more extended nor more fatal than in other localities.

THE MEDICAL EXAMINER.

PHILADELPHIA, AUGUST, 1849.

CHOLERA AMONG MEDICAL MEN.

Numerous reports of death by cholera among medical men, both in this country and abroad, are reaching us daily. In St. Louis, we understand by the daily prints that several of the "Professors of Medicine" are among the victims; whether these are our friends in the medical schools of that city, we are not credibly informed. In this city we have to record the death of two who have fallen victims to this scourge: Mr. Thomas M. Flint, a valued contributor to this journal, and Mr. S. Warren White, late of Yazoo city, Miss., Students of Medicine. Both of these gentlemen had volunteered

their services, among a number of others, during the prevalence of the cholera in the Philadelphia Almshouse, Blockley, the medical officers of which institution have been worn out by their constant devotion to the sick. Both fell victims to the dread disease, in consequence of the fatigues attendant upon their duties. One had but recently graduated, and gave promise of a life of usefulness and distinction; the other was looking forward in bright anticipation of the highest honors of his Alma Mater, after having served with much distinction throughout the Mexican war.

We have often deplored the little impression that is made by the decease of those whose lives are devoted to the cause of humanity. When a medical officer distinguishes himself on the field of battle by cool courage, or falls while in the discharge of his duties, no glowing despatch or public demonstration chronicles his services to an unsympathizing public; in the time of pestilence, when all others are fleeing before its breath, no eulogy of grateful praise is offered to those whose lives are risked, aye often sacrificed, to stay its progress; and those who fall, as these have fallen, too often sink into the grave, followed only by the tears and regrets of the few who knew their worth.

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By our foreign exchanges we learn the death of Prof. Blandin, in the fiftieth year of his age; of M. Bourgery, author of L'Anatomie de l' Homme; M. Boudet, member of the Academy of Medicine, and M. Mojon, of Geneva, an eminent surgeon under Napoleon, and long resident in Paris. Professor Bouillaud is likewise reported to be suffering from a very severe attack of cholera.

DEATH OF PROFESSOR BARBOUR, OF ST. LOUIS.

It is with deep regret we have to record the decease—by the fatal epidemic which has rendered St. Louis desolate, and been fatal to so many of its exemplary citizens—of Professor Barbour, who ably filled the chair of Obstetrics in the University of Missouri, the medical department of which is located in St. Louis.

It is not more than two months since we saw him in this city full of health and enthusiasm in the profession of his choice; zealous in the pursuit of knowledge; and energetic in availing himself of every means of information to enable him to be more eminently useful in the responsible office of a teacher of the important branch assigned him in the medical school of which he was one of the ornaments.

Professor Barbour was a native of Virginia, and a son of Judge Bar-

bour, of the Supreme Court of the United States, one of the distinguished worthies whose memory Virginia cherishes. He received his professional education partly at the University of Virginia, and graduated in the University of Pennsylvania. Many years ago he moved to the south-west, and occupied for some time, with marked credit, the chair of Chemistry, in Lagrange College, Tennessee. The chair of Obstetrics, in the University of Missouri, having been offered him, he moved to St. Louis some years ago, and has since resided there; honored as an able teacher; beloved as a man; extensively confided in as an honorable and philanthropic physician; and, when prematurely cut off, having still brighter prospects before him. He had the greatest confidence in a compound of morphia, Hoffmann's anodyne liquor, and other excitants, similar to many formulæ in use in cholera and choleroid affections; but his own case is another melancholy example of the utter inapplicability of any remedy, or combination of remedies, for special morbid conditions, which may, notwithstanding, have received a common appellation.

OBITUARY.—MR. CLIFT, F. R. S.

The last English steamer brought us the intelligence of the death of this gentleman. Mr. Clift has been long and deservedly well known, both in this country and in England, as the Conservator of the Hunterian Museum of the College of Surgeons, London; a situation which he has held for nearly half a century; as he was appointed to that office on the purchase (in 1799) of the collection by the British Government from the executors of John Hunter, whose pupil and assistant he was for many years. All will remember the part he took in the exposure of that literary incendiary, Sir Everard Home. The statement of the destruction of the Hunterian MSS. was obtained from him in his examination before a committee of the House of Commons, when this nefarious affair was first made public. Mr. Clift has been engaged for many years in preparing a *descriptive* catalogue of the Museum. Of those parts of the *general* catalogue which have been published, two, it is generally supposed, were drawn up by him,—the first and second, containing an account of the Pathological preparations in spirit and in a dry state; the rest being done by his late son, Mr. Home Clift, and his son-in-law, Prof. Owen.

CORRECTION.

The analysis of cod liver oil presented to our readers in the last No. of the Examiner, should have been credited to De Jongh, as published at Leyden, in 1843, in his "Disquisitio comparativa chemico-medics

de tribus olei jecoris aselli speciebus;" a condensed account of which, by Dr. Pereira, will be found in the Record of the present number, under the head of *Chemistry*. The analysis is remarkable for its accuracy and completeness.

EDITORIAL AND OTHER CHANGES.

The New York Annalist has been discontinued, and its subscription list transferred to the New York Journal of Medicine. The late editor, Dr. N. S. Davis, has been appointed Professor of Physiology and Pathology in Rush Medical College, Chicago.

Two additional chairs have been created in the Medical College of Ohio, viz., Physiology and General Pathology, by Dr. L. M. Lawson, and Surgical Anatomy and Clinical Surgery, by Dr. I. T. Shotwell. Dr. Daniel Drake now occupies the chair of Special Pathology and Practice of Medicine, and Dr. G. W. Bayless, that of Descriptive Anatomy.

In the University of Louisville, Prof. Short has resigned the chair of Materia Medica, and Dr. Lewis Rogers appointed in his stead.

Dr. A. H. Baker, of Cincinnati, has been appointed Professor of Surgery in Indiana Central Medical College.

In Transylvania University, Prof. Annan has been transferred to the chair of Theory and Practice, and Prof. Wm. M. Boling, of Montgomery, Ala., appointed to that of Obstetrics, vacated by Prof. Annan.

The New Orleans Medical and Surgical Journal comes to us in a new dress, and with the gratifying announcement, that the sixth volume is commenced under more encouraging auspices than at any time since the work was commenced. We heartily congratulate our friends on their flattering prospects.

MEDICAL DEPARTMENT, U. S. ARMY.

The following gentlemen having passed a satisfactory examination at the recent meeting of the Board of Examiners in New York, have been appointed Assistant Surgeons in the Medical Department of the U. S. Army.

Wm. H. Ballard, of Louisiana; George K. Wood, of New York. Report in person at Jefferson Barracks.

Joseph P. Brown, of Michigan. Report in person at Fort Mackinac.

Alexander B. Hasson, of Maryland. Report in person at Fort Leavenworth.

Jonathan Letherman, of Pennsylvania. Report in person at Fort Monroe.

William A. Hammond, of Pennsylvania. Report in person at Carlisle Barracks, for duty with troops under orders to Santa Fe.

Francis Sorrell, of Georgia. Report in person at Fort Johnson, N. C.

Edward W. Johns, of Maryland. Report in person at Fort Columbus.

William W. Anderson, of South Carolina. Report in person at Fort McHenry.

CHOLERA IN PHILADELPHIA.

The following table, from one of the daily prints, gives the entire number of interments of cholera and other diseases, from the time the disease first appeared, up to Saturday, the 28th ult.

	Cholera.	*Other Diseases.*	*Total.*
Week ending June 2	3	135	138
" " " 9	3	127	130
" " " 16	5	114	119
" " " 23	14	170	184
" " " 30	80	263	343
" " July 7	170	234	404
" " " 14	179	279	458
" " " 21	196	309	505
" " " 28	136	279	415
Total, nine weeks,	786	1910	2696

Of these 786 deaths by cholera, about 350 have occurred in the almshouse and in the cholera hospitals, leaving 436 that have occurred in private practice—a fraction more than one in a thousand of our population.

In New York the bills of mortality have reached an alarming height. The entire number of interments in that city during the week ending on July 21st, was 1409, and of these there were of cholera 714; which is 72 less than we have had in this city during the nine weeks that it has prevailed here. The following exhibits the number of interments in that city since the epidemic broke out:

	Cholera.	*Other Diseases.*	*Total.*
Week ending May 26	13	281	294
" " June 2	29	241	270
" " " 9	121	288	409
" " " 16	146	280	425
" " " 23	152	321	473
" " " 30	286	448	734
" " July 7	317	385	702
" " " 14	484	507	991
" " " 21	714	695	1409
Total, nine weeks,	2261	3446	5707

During the first nine weeks of the epidemic of 1832, the entire mortality in New York was 4673, and the deaths by cholera were 2999. The aggregate of this year exceeds that of 1832 considerably, and the deaths by cholera are rapidly coming up to the figures of that year, while the number of deaths from it during the week ending July 21st is within two of the highest weekly number of that year, which was 716. It must, however, be remembered that the population is immensely increased since that time, and the city is now crowded with immigrants, among whom a large proportion of the deaths occur.

CHOLERA IN THE BLOCKLEY ALMSHOUSE, PHILADELPHIA.

The number of inmates of all classes at the Philadelphia Almshouse, which at the outset of the Cholera invasion amounted to about 1700, was rapidly reduced by various causes, so as to range between 1400 and 1500 during the latter half of the period referred to. The average population of the establishment may be therefore estimated at about 1600 for the past eight weeks.

A comparison of this roughly approximative statement with the reports above presented will exhibit, at a glance, the serious extent to which the epidemic has recently prevailed within the Blockley precincts. Nor can it fail to force upon the notice of the reader the very grave mortality which has marked the progress of that fell disease among the pauper residents. Slight and gentle as the visitation to our city generally ought to be regarded, we must confess the mysterious enemy has found no lack of prey upon the debilitated frames of the unhappy pensioners of the public bounty. Still more alarmingly true is it that the disproportionate array of fatal cases has left a miserably narrow margin for exaggeration to the most terror-stricken dealer in the marvellous.

The Pennsylvania Hospital, Wills Hospital, Moyamensing Prison, Eastern Penitentiary, in a word, all our Asylums and houses of detention, have been in a great degree exempt, while the unlucky inhabitants of the County poor-house appear to have been stricken with a special doom.

What is the meaning of this dreadful and singularly marked exception to the general rule? Why is it that in all the abodes but one of the dissolute and destitute, the infirm, sick and disabled, the members of these classes continue to escape; while in that one, crowds of wretches are seized upon so fatally, that certainly not less than 80 out of every hundred thus attacked have sunk down and died at once in spite of early and well direct-

ed efforts on the part of medical attendants, whose skill and devotion no one properly informed will pretend to call in question? Simple justice to these medical officers requires a clear and full explanation of the facts as far as they are known. We have elsewhere spoken of the dangerous, and in all respects self-sacrificing services of these gentlemen of the Almshouse staff; and have been subjected to the painful duty of recording the ravages of death as well as of disease among them—almost the only appreciable result of their unflinching constancy and zeal in the discharge of a cheerfully accepted duty. Our object in this hurried note is to call for more satisfactory information than is yet within our reach, in relation to the supposed and alleged causes of a state of things in our opinion entirely too deplorable to be quietly observed without investigation in the proper quarter. In the face of a loss of life so seriously out of all proportion to the casualties in other similar assemblages infected with the same disorder, we cannot help suspecting that there has been "something rotten" in the jurisdiction of our Guardians of the Poor; and we consider a strict and fair account of the recent hygienic management of their unwieldly "institution," as well as of the miasmatic influence presumed to be at work around it, to be due not only to the members of the medical profession here, who have so much at stake in the inquiry, but to the whole community around us, if not to humanity at large.

We are willing to attribute much to the "want of stamina"—to use a favorite apologetic phrase—necessarily existing in the aged, diseased, and otherwise depressed and disabled patients whose already broken health inevitably swells the death-list of a poor-house ward; but we cannot forget that in these respects the denizens of the Blockley galleries and out wards, and even of the infirmary and lunatic asylum, are not a whit worse off than crowds of their vagrant compeers in other equally populous districts of this country, while they are decidedly superior as a class to the habitual frequenters of the Union workhouses and hospices abroad. Medical men, who are too familiar with the natural history of the pauper species to be content with such a meagre etiology, must look beyond the individual patient and his previous habits for a complete solution of the problem of his utter inability to resist the first onset of a new disease, albeit that messenger of death be cholera itself. We have reason to believe from some observation and inquiry of our own, and still more on the authority of information which has reached us from various sources entitled to respect, that the prevalence of the disease, as well as the appalling failure of the ordinary and established modes of treatment hitherto successful in a large

number even of pauper cases, may be attributed in a considerable degree to errors of dietetic and other general management, which the physicians supposed to be entrusted with the direction of such matters, have not been permitted to correct. We have no doubt that a great change is needed, not only in the diet of the inmates of every department of the Blockley establishment, but in the regulation of their exercise and occupation, their personal cleanliness and other habits, and the proper purification, ventilation and other arrangements of their dormitories, dining halls and day rooms. We rejoice, therefore, that public attention has been attracted to the direction of its internal affairs; and whatever may be the merits of the family quarrel which has for some time past notoriously distracted and impeded the useful action of the directing Board, we are led to hope that the advocates of true progress have at length attained a permanent and efficient ascendency in the administrative power.

As an earnest of this better prospect, we take pleasure in stating that a committee of Guardians, together with the medical superintendent, have lately completed a tour of inspection of the principal asylums and similar houses of employment in the neighboring states. Since their return, these gentlemen have published a report of the result of their inquiries; and in the course of this they strongly urge the necessity of several important alterations, which we sincerely trust are destined ere long to prove but the prelude to an entire reform.

The report of the Almshouse commission has been received too late to admit of the notice which it certainly deserves; but much as we are pressed for time and space, we cannot close without particular allusion to the remarks of the reporters, upon the importance of allowing to the superintending resident-physician the "entire control and supervision" of the system of administration, for the results of which, from the nature of his office, he is held responsible. The absurd anomaly of a medical superintendent burthened with the responsibility of securing the welfare and safety of a large population, but unfurnished with authority to check mismanagement and enforce his own administration, one might suppose were not to be found in a rational community, much less in one pretending to the front rank of civilization and humanity. Here especially in Philadelphia, noted for her philanthropy and the elevated rank of her medical fraternity, such a strangely contradictory and mischievous position of a medical office of high trust and honor should hardly be allowed to stare us in the face; and yet we have it not only in the Blockley Almshouse, as a matter of indisputable notoriety and long established usage, but it may be seen in virtual operation in places of far wider note and much greater pre-

tensions than a county poor-house. The common sense of every humane man must revolt at such an unjust and worse than ridiculous severance of means and ends. We cannot afford to dwell upon it now. The importance of the theme may be our warrant for a return to its consideration at another time. We may take occasion then to be a little more explicit in regard to more than one institution, in which we have reason to believe the recommendations of the responsible physician are habitually disregarded, to the manifest detriment, not only of his general usefulness, but of the health of the subjects supposed to be committed to his sole and untrammeled professional care.

RECORD OF MEDICAL SCIENCE.

ANATOMY AND PHYSIOLOGY.

Structure of the Vitreous Humor.—In a paper in the Dublin Quarterly Journal of Medical Science, for August, 1848, Mr. William Bowman, after noticing the researches of Pappenheim, of Brücke, and of Hannover, on the internal construction of the vitreous body, as disclosed by treating it for a certain period with solutions of carbonate of potass, of acetate of lead, and of chromic acid, and then making careful sections of it in various directions,—gives a precise and accurate account of his own examinations of this part in man, and in many of the inferior animals. From these researches we have extracted the following points.

In man, the vitreous humor, exposed to the action of dilute chromic acid for a year, and then sliced, displays a series of alternate light and dark layers, for the most part parallel to the outer surface. These extend inwards about one-eighth or one-fourth of an inch; and in front seem to run up to the suspensory ligament of the lens, and to the posterior capsule. More internally, there was evidence of small canals traversing the vitreous body in a central direction; while in its middle region there was an irregular cavity, apparently formed by breaking up of the tissue.

Mr. Bowman then adverts to the appearances produced in the vitreous body by bringing it into contact with solution of acetate of lead, according to the method of Brücke. In these experiments, the fresh eyes of mammals were used. The latter author placed the entire globe, or at least the entire vitreous body, in the solution; and on finding a very beautiful system of concentric layers of precipitate, parallel to that surface, (formed after a certain period of immersion,) concluded that they arose from, and demonstrated the existence of, a true system of concentric membranes in the substance of the vitreous

body,—the precipitate, which occasioned the white color, being, as he imagined, stopped in its progress inwards by the membranous sheets successively encountered.

Mr. Bowman, however, not feeling satisfied that his conclusion was a legitimate one, repeated and varied the experiments, by exposing to the action of the salt of lead, portions of the vitreous body previously cut in different directions,—and in all instances found the layers of precipitate deposited parallel to the surface, whether that surface were the hyaloid, or one formed by the knife. The necessary inference from this interesting fact, seems to be, that this elegant deposit of the precipitate, in distinct layers one within the other, is to be ascribed to some physical cause connected with the phenomenon of imbibition, and not to any pre-existing structure or arrangement of membranes. Of this cause no explanation can be afforded by the laws of endosmose, as at present known.

Mr. Bowman also describes the appearances produced in the vitreous body of a mature human fœtus, by the prolonged action of dilute chromic acid, and which are among the most interesting of the whole. He finds, at the region of the yellow spot, a cup-shaped evolution of the retina, into which the vitreous substance does not enter. The vitreous substance also exhibits a fibrous radiation from the hyaloid canal (that extending from the entrance of the optic nerve to the back of the lens, and conveying branches from the central artery and vein) towards the hyaloid surface, countenancing the opinion of Hannover, that the human vitreous body is formed in segments comparable to those of an orange. In the coagulated vitreous of the human fœtus, Mr. Bowman finds an elegant fibrous structure, like that of the enamel pulp.

The author attributes no value to the assumed evidences of structure afforded by congelation of the vitreous body. Mr. Bowman then explains the results of his observations on the vitreous body, in birds and fishes; and concludes that, in the latter, especially, there is good ground for believing that it contains a true system of lamellæ, proceeding from the junction of the choroid and iris, to the lens, and contributing to the mechanical support of this large and solid part in the eye of the fish.—*London Journal of Medicine.*

EARLY PREGNANCY: AND INFANTILE MENSTRUATION.

In the London Medical Gazette, for 3d Nov. 1848, Mr. John Smith publishes a recent case of *Early Pregnancy.* It is interesting, not only from the extreme youth of the mother, but from the fact of her having borne a living and tolerably healthy infant. The following is Mr. Smith's narrative:—

"At the Coventry Assizes, of August, 1848, Julia Amelia Sprayson preferred a charge of rape against her uncle, James Chattaway, who was convicted of the assault, and sentenced to two years' imprisonment and hard labor in the House of Correction. The girl was far advanced in a state of pregnancy, and as it is of rare occurrence for conception to

take place at so early an age as *between eleven and twelve years*, many surmises were expressed by the gossips as to what would be the probable issue. She continued in good health up to the day of delivery, which took place on the 16th September, 1848. In the early part of the morning she became restless and uneasy; and from the hour of 11, A. M., slight pains occurred at irregular intervals, until about 5, P. M., when it was evident that labor was rapidly advancing. On being sent for soon after, in consequence of the absence from town of Dr. Dewes, who had been engaged to attend her, I proceeded to make an examination, when I found the pelvis of average dimensions, and the os uteri about the size of a shilling piece; but as the parturient throes were active, and returned every eight or ten minutes, it appeared prudent to remain until the case had terminated. Nothing remarkable supervened during the progress of the labor, except that it was of unusually short duration. From first to last she was not more than ten hours ailing, while the period of actual labor was not extended beyond four hours, and this would have been further shortened but for the smallness of the external outlet. The subsequent symptoms were just as favorable as the labor had been short. The lochia ceased after the lapse of a few days: the mammæ became duly developed, and the secretion of milk was so copious as presently to suggest to her mother the idea of seeking for a situation as wet nurse. The infant at birth was long, slender, and emaciated, but rather below the average size, and in many respects may be said to have borne a striking resemblance to the offspring of mothers who had been imperfectly nourished during pregnancy. It did not occur to me at the time, either to place it in the scales, or to take its admeasurement, but at the time of writing this report (23d October, 1848,) it is 8¼ pounds in weight. The present weight of the mother is 104½ pounds. When she had so far recovered as to take a share in domestic avocations, it seemed advisable to pay her an early visit, to elicit, if possible, some farther information than what had transpired in court, with a view of establishing some data as to the period of utero-gestation; and although foiled and disappointed with the result of this part of the investigation, some particulars of interest were readily obtained. She was rather of prepossessing appearance, of fair complexion, with brown hair and dark gray eyes; more womanly by far than is usually witnessed at her age, her figure being tolerably plump, well set and proportioned, and her height being rather more than five feet; and notwithstanding her casually childish manner, there was that forwardness of expression which betokened a more than ordinary development of character. On inquiry her mother assured me that she began to menstruate when *ten years and six weeks* old; and it was distinctly ascertained that there had been a regular return of the catamenial discharge, in somewhat profuse quantity, up to the period at which conception took place. The girl had lost her father about two years ago, and that she might not be a burden to her widowed mother, had been in residence with her uncle, who was a weaver at Foleshill. This unhappy man, who proved her seducer, was aged forty-seven, living with his wife, to whom he had been married twenty-five years,

and by whom he had had a family of two or three children. The niece was taught to weave at a handloom, which stood in the same apartment in which her uncle pursued his daily employment; and here it would seem that familiarities arose which issued at length in criminal intercourse. This latter took place for the first time about the middle of November, 1847, and was allowed to be repeated on four occasions at weekly intervals; but as the catamenia had appeared during the last week of that month, and did not recur in the Christmas week, she dated conception from the latter period. No communication was made to her relations of what had transpired until six months had elapsed, when her situation became too prominent to elude further observation, and then it was that arrangements were made for bringing her under the maternal roof; and means were taken for delivering her seducer into the hands of justice. The most rigid inquiry failed in deducing any farther particulars that could be at all relied on as authentic information. . . . . I have been at the pains of consulting the registers both of her birth and baptism. The former bears the date of February 13th, 1836, and the latter March 7th, of the same year."

Early Pregnancy.—In connexion with the above, the following notes of cases of early pregnancy may be interesting to many; the more especially at present, when we may expect to hear of similar, or more remarkable cases, occurring in those continental cities which have lately been the scene of revolutionary license. That the aptitude of the human female for conception at a tender age is greater than is commonly imagined, we may infer from the fact that during national convulsions (in which the bonds of social order and decency have been broken,) cases of early pregnancy have been observed to be of more frequent occurrence. During the revolution in France, at the close of the last century, several instances occurred of females of eleven, and even below that age, being received, in a pregnant state, into the Maternité at Paris.

1. Sir Everard Home says, "I have met with corpora lutea in virgins at fourteen, and know of two instances of girls still earlier, one at thirteen, the other at twelve."—*Phil. Trans.* 1819. p. 61.

2. Dr. W. F. Montgomery says, that "the earliest instance of pregnancy known to him, was that of a young lady who brought forth twins before she had completed her fifteenth year."—*Signs and Symptoms of Pregnancy*, p. 163.

3. Mr. Robertson, of Manchester, mentions a case which occurred in the practice of Mr. R. Thorpe. It is thus quoted from the Edinburgh Medical and Surgical Journal, vol. xxxviii, p. 231, by Dr. Montgomery:—"She had been employed in a cotton factory, and was represented to have become pregnant in her eleventh year. Mr. Thorpe and the late Dr. Hardie were at the trouble of examining the registers of her birth and christening, and fully satisfied themselves that she had really conceived during the eleventh year of her age, and that at the time of her delivery she was only a few months

advanced in her twelfth year; her figure was that of a well-grown young woman, with fully developed mammæ, and it was ascertained that she had menstruated before she became pregnant."—*Op. cit.* p. 162.

4. Dr. Rowlett, of Waisborough, Kentucky, reports, in the Transylvania Medical Journal, vol. vii., p. 447, the case of Sally Deweese, born 7th April, 1824, in the county of Butler, Kentucky. "She began to menstruate at a year old, and the pelvis and breasts became developed in an extraordinary degree: she continued to menstruate regularly up to 1833, when she became pregnant, and on the 20th April, 1834, she was delivered of a female child, weighing seven pounds and three-quarters. At the time of publishing the case the child weighed eight pounds and three-quarters, and the mother 100 pounds, and was four feet seven inches in height."—(As quoted by Montgomery, *Op. cit.* p. 162.)

5. La Motte delivered a girl who had not completed her thirteenth year, and who had never menstruated.—(*Traité des Accouchemens,* Obs. xxiii., p. 52, as quoted by Montgomery, *Op. cit.* p. 163.)

6. Dr. Michael Ryan knew of a female pregnant at 12½ years of age.—*Medical Jurisprudence,* p. 242.

Infantile Menstruation.—The following are a few curious instances, some of which certainly may be considered as puberty at an infantile age:—

1. Mr. Embling, in the Lancet for January 29, 1848, gives the following case:—At the date when the account was published, the child was three years old, and had during some preceding months menstruated regularly. The mammæ and nates were as fully developed as in an adult of twenty; the labia, etc. were like those of a mature young woman; the hymen was perfect; the vagina anteriorly was of large size; and on the pubes there was a slight growth of hair. The countenance, appearance and gait were in miniature those of an old woman. At her menstrual periods, she suffered the uterine, lumbar, and other pains common in women capable of utero-gestation.

2. Dr. Dieffenbach, of Berlin, in Meckel's Archiv für Anatomie, etc., 1827, p. 367, relates a case of early menstruation in a child nineteen months old. It was at birth of the natural size, but after the first month began to grow rapidly. In her ninth month she was as large as a child a year and a half old; and about this time a discharge of blood from the vagina was observed. At the end of two months a more copious discharge took place, which was accompanied with an increase in the size of the mammæ, and the appearance of hairs on the genitals. The same phenomenon recurred at fourteen, and again at eighteen months. At the time of the report the mammæ were large, and the genitals were largely developed and covered with hairs. Nothing was remarked in her mental disposition different from other children of the same age, and there was no indication of sexual desire.

3. Dr. Catals, of Adge, attended a little girl of six years old, who was affected with a spasmodic cough, colic, headache, and epistaxis, which recurred every month. With other remedies which this condition indicated, he applied leeches to the calves of the legs. A discharge of blood from the uterus supervened, which was preceded by a febrile state. These phenomena, accompanied with some enlargement of the mammæ, pain in the lumbar region, and itching of the genitals, returned regularly every month, and lasted three days.—(*Journal de Médecine et de Chirurgie*, par Corvisart, Leroux, et Boyer, t. xi. p. 37, as quoted by De Boismont, in his work, *De la Menstruation*, p. 33. Paris: 1842.)

4. M. A. Brierre De Boismont, op. cit. p. 35, relates, on the authority of M. Le Beau, the case of Matilda H., who was born at New Orleans in 1827, with the breasts and genitals as perfectly developed as in a girl of 13 or 14 years. The menses appeared regularly each month, from the age of three years. They continued three days; and were as copious as in a perfect woman. At the age of four years, when the report was made, she was well-formed, and of handsome appearance; the mammæ were of the size of a large orange; and the pelvis seemed as large as in a child of eight years. Her health was excellent.—(From *Annal. d'Hygiène*, t. x. p. 484.)

5. Dr. Carus, of Dresden, mentions the case of Christina Theresa, born in the mountains of Saxony, of parents of a weak constitution. She was scarcely a year old when she began to grow rapidly. At the end of the second twelve-month the catamenia appeared, and continued to flow regularly once a month. The mammæ were firm, like those of a strong girl of 16; the body was stoutly made; and the genital organs were covered with dark brown hair. Her intellectual functions, tone of voice, and physiognomy, were those of a child three years old.—(*Allgemeine Zeitung für Chirurgie*, as quoted in *Edinburgh Monthly Journal of Medical Science*, p. 1050. 1842.)

6. Mr. W. H. Whitmore, of Cheltenham, communicated to the Northern Journal of Medicine, for July, 1845, an account of the case of a child who menstruated regularly, at intervals of three weeks and two or three days, from a few days after birth, until the age of four years and some months, when she died. The development of the body equalled that of a girl 10 or 11 years of age. The mammæ were unusually large; the mons veneris well covered with hair; the labia pudendi more sparingly so. In the absence of her periodical ailments, she would enter into the amusements of children of her own age; but when she was indisposed, she was exceedingly reserved, and would withdraw from all her playful occupations.

7. Dr. Lenz, of Dantzig, relates a case in which menstruation appeared at the eighteenth month, and continued up to the age of two years, when the case was reported. The general health was unaffected in the intervals, provided the discharge took place at the regular periods. The breasts and genital organs presented no remarkable appearance, but experienced an increase in temperature and size at each menstruation.—(*Caspar's Wochenschrift*, Oct. 3, 1840.)

8. M. Gruere, of Dijon, was acquainted with the case of a child, aged three years, who had menstruated regularly since she was one year old. Her general health was good. There were no premonitory symptoms, except a slight feeling of tension in the hypogastric region. There were no external signs of puberty.—(*Journal de Medecine et de Chirurgie Pratique.* Mai, 1842. Paris.)

In addition to the above cases, others have been recorded, in which a discharge of blood, often accompanied with some enlargement of the breasts, took place from the genital organs soon after birth. It seems probable, however, that the hæmorrhage might have arisen from other causes than the establishment of menstruation; and that the enlargement of the mammæ may be due to the sympathy which exists between them and the genital organs, independent of sexual aptitude. Of this kind are, probably, among others, the cases recorded by M. Mallat in the Gazette Médicale for 1832; and by Dr. Camerer in the Medicinisches Correspondenz-Blatt, as quoted in Gazette Médicale, p. 248. 1815.—*Ibid.*

On the Color of the Hair.—In the Medical Gazette for November 17, 1848, Dr. Griffith states that the appearance of pigment-cells in the hair, as seen under the microscope, is deceptive; and that this appearance results from a number of air cavities existing in the medullary portion of the hair. The air refracts the rays of light beyond the field of the microscope, and they appear black, with generally, however, a white spot in the centre. He considers his statement proved by the following observations:—

1. If a piece be cut, transversely, from the centre of the hair,* and this be digested in warm water or alcohol, the hair becomes very transparent; and, by this means, all the air-cavities may be filled with the water or spirit,—nay, if the piece of hair be immersed in oil of turpentine, and warmed, the fluid may be seen under the microscope to enter the cells, and the air to escape in bubbles at the ends. All appearance of the pigment then vanishes; but traces of the cell-wall of the medulla are still faintly seen,—they not being of the same refractive power as the medium in which they are immersed.

2. If the portion of hair be removed from the water, spirit, or oil, and allowed to dry, the fluid evaporates, and the air may be seen under the microscope to enter and restore the original appearance. On preserving specimens of hair in Canada balsam, the cells are frequently filled, in parts, with the balsam, especially at the extremities.

3. If the hair be bruised in an agate mortar, it becomes flattened out, resembling a shred of membrane, the pigment appearance being completely destroyed.—*Ibid.*

* That of the sable, or some other animal in which the cavities are large and distinct, is the best.

CHEMISTRY.

Chemical Nature of Cod Liver Oil.—Dr. Jonathan Pereira has communicated to the Pharmaceutical Journal for February 1849, pp. 370–78, the important researches of De Jongh, accompanied by important remarks of his own. The following is an abridgment of the paper, which, our readers will observe (among other interesting facts,) points out that sulphuric acid is a test, by which the oil obtained from the livers of fish can be distinguished from the oil got from other parts of the animal.

The oils obtained from the livers of the tribe *Gadidæ* are very similar in their physical, and chemical, and probably also in their medicinal, properties. To all of them, the term *Oleum Jecoris Aselli*, *Oleum Jecoris Gadi*, or *Cod-liver Oil*, is indiscriminately applied; though it is commonly used to indicate the oil of the liver of the common cod (*gadus morrhua*, Cuv.) It would be better, therefore, to employ the term *Oleum Jecoris Morrhuæ*, when it is intended to designate the latter oil.

De Jongh, in his *Disquisitio Comparativa Chemico-Medica de Tribus Olei Jecoris Aselli Speciebus*, published at Leyden in 1843, states, that the Bergen (Norwegian) oil is principally obtained from three species: viz. the dorse (*gadus callarius*,) the coal-fish (*gadus carbonarius*,) and the pollack (*gadus pollachius*;) but chiefly from the first.

De Jongh made a very elaborate analysis of three kinds of Cod-liver Oil:—

1. *Pale Cod-liver Oil.*—Golden yellow; odor not disagreeable; not bitter, but leaving in the throat a somewhat acrid fishy taste; reacts feebly as an acid; sp. gr. 0·923 at 63°·5 Fahr. Cold alcohol dissolves from 2·5 to 2·7 per cent. of the oil; hot alcohol from 3·5 to 4·5 per cent.; in ether it is soluble in all proportions.

2. *Pale brown Cod-liver Oil.*—Color, that of Malaga wine; odor not disagreeable; bitterish, leaving a slightly acrid fishy taste in the throat; reacts feebly as an acid; sp. gr. 0·924 at 63°·5 Fahr. Cold alconol dissolves from 2·8 to 3·2 per cent. of oil; hot alcohol, from 6·5 to 6·8 per cent. Ether dissolves it in all proportions.

3. *Dark brown Cod-liver Oil.*—Dark brown, in transmitted light greenish, in thin layers transparent; odour, disagreeable, empyreumatic; taste bitter and empyreumatic, leaving behind, in the fauces, an acrid sensation; reacts feebly as an acid; sp. gr. 0·929 at 63°·5 Fahr. Cold alcohol dissolves from 5·9 to 6·9 per cent, of it; hot alcohol, from 6·5 to 6·9 per cent. In ether it is soluble in all proportions.

De Jongh found the constituents of these oils to be *oleate* and *margarate of glycerine*, possessing the usual properties. But they also contained *butyric* and *acetic acids*, *the principal constituents of the bile* (bilifellinic acid, bilifulvin, and cholic acid,) *some peculiar principles* (among which was the substance called *gaduin*,) and not quite one per

cent. of *salts*, containing iodine, chlorine, and traces of bromine. Moreover, he found that the oils contained free *phosphorus*.

The *pale* oil is richest in oleic acid and glycerine; the *brown* oil contains the largest amount of margaric, butyric, and acetic acids, and of the substances peculiar to Cod-liver oil; and the *pale brown* oil is richest in iodine and saline matters.

I. *Gaduin* (discovered by De Jongh) is thus obtained: Saponify Cod-liver Oil by means of caustic soda, and decompose the soap thus obtained by acetate of lead. The resulting lead-soap treat with ether, which takes up oleate of lead and gaduin, and leaves undissolved the margarate of lead. The ethereal solution is dark brown. If it be decomposed by sulphuric acid, brown oleic acid is set free. The brown colour of this acid is owing to the presence of gaduin. To separate the latter, add excess of caustic soda to the oleic acid, by which oleate of soda is formed. This is insoluble in the excess of caustic soda. It is to be dissolved in alcohol, and the alcoholic solution cooled below 32° Fahr., by which the oleate of soda separates, leaving, for the most part, the gaduin in solution. By sulphuric acid, the gaduin is precipitated from its solution.

Gaduin is first yellow, but on exposure to air, brown; it is odorless, tasteless, soluble in alcohol, but rendered insoluble by evaporating its solution to dryness. The alcoholic solution yields, on the addition of neutral acetate of lead, a copious precipitate, composed of C_{35} H_{22} O, P b O. If this lead salt be digested with carbonate of soda, it is decomposed, and a soda salt is obtained in solution, from which sulphuric acid precipitates a brown acid. Gaduin is insoluble in water, in nitric, and in hydrochloric acids. In sulphuric acid it dissolves, and acquires a blood-red color; but from this solution it is precipitated both by water and alkalies. It is soluble in alkalies. Diffused through water, and treated with chloride, it becomes decolorized. In burning, it yields an odor first of acetic acid, afterwards of cod-oil, and leaves behind a small quantity of ash. Berzelius thinks that gaduin is primitive bilifulvic acid; and that the reddish-brown substance, insoluble both in alcohol and water, which he (Berzelius) separated from bilifulvin by long and numerous operations, is only the insoluble modification of gaduin. Gaduin is contained in the three varieties of oil examined by De Jongh.

2. *Fatty acids,—margaric and oleic acids,*—do not appear to differ in their nature and composition from the same acids procured from other sources.

3. *Glycerine.*—This was obtained by saponifying Cod liver Oil by caustic soda.

4. *Bile Constituents.*—When Cod-liver Oil is shaken with water, an emulsion is obtained, from which the oil slowly separates. The aqueous liquid becomes clear by filtration. That which had been obtained by shaking the brown oil with water, was colored and empyreumatic; but the other kinds of oil did not color the water. The liquid invariably had a slightly acid reaction, and the oil which had been shaken with it was clearer, had a feebler odor, and reacted less powerfully as

an acid. By boiling the oils with water, the same results were obtained. By evaporation, the aqueous fluids from all the three kinds of oil yielded a reddish-brown extract, which, softened by heat, was slightly soluble in water, more soluble in ether, and completely so in alcohol. Alkaline solutions dissolved it, and acids threw it down again in the form of a reddish-brown flocculent precipitate. The extracts had a peculiar odor, and a bitterish taste. The quantities obtained from the different kinds of oil were as follows:

	With cold water.	With hot water.
Pale oil - - -	0·607 per cent.	0.513 per cent.
Clear Brown oil	0·890 —	0·849 —
Brown oil - -	1·288 —	1·256 —

When successively treated with ether, alcohol, and dilute spirit, all these extracts yielded the same results.

By ether, a reddish-brown, transparent, glutinous extract was obtained, which melted by heat, stained paper, and had the odor and taste of bile. After some time, small crystals made their appearance in it. It was slightly soluble in water, but readily so in ether and alcohol. A solution of carbonate of ammonia, added to its ethereal solution, caused separation into two layers. The upper turbid layer, by evaporation, yielded some drops of *olein*, some crystals of *margarin*, and a *brownish mass*, which was identical with that procured by evaporation of the lower layer. This brown mass had a bitter taste, was separated by water into a soluble and insoluble portion, and consisted of *fellinate* and *cholate of ammonia*.

The extract, which had been exhausted by ether, yielded to alcohol a blackish-brown, odorless, bitter, shining, hygroscopic mass, which dissolved with difficulty in water, and consisted of *biliverdin*, *bilifulvin*, and *bilifellinic acid*.

Dilute spirit removed from the residual extract a black shining substance, soluble in alkalies, concentrated sulphuric acid, and hot acetic acid, but insoluble in nitric and hydrochloric acids. From its alcoholic solution, baryta-water and acetate of lead precipitated it of a brown color. It left no residue by burning.

The residue of the aqueous extract, left after the action of the three above mentioned solvents, contained an *organic substance* (whose nature has not been determined) and *inorganic salts*, in which chlorine, phosphoric and sulphuric acids, lime, magnesia, and soda were found, but no potash or iodine.

5. *Iodine, bromine, and chlorine.*—Their therapeutical agency in the oil must, if any, be exceedingly small the proportions in which they exist are inconstant, though very trifling. Beneficial effects have been produced by the use of the oil, which neither iodine nor bromine are capable of producing. De Jongh says, that iodine is present in genuine Cod-liver Oil, but that the only certain mode of detecting it is to saponify the oil, and carbonize the resulting soap. He confirms Stein's remark, that neither by immediately carbonizing the oil, nor by saponifying it, and then decomposing the soap by acids, can the iodine be detected. It follows, therefore, that iodine exists in the oil neither in

the free state nor in that of metallic iodine, but probably in organic combination—perhaps, as an iodic fatty acid. De Jongh determined the proportion of iodine by forming iodide of palladium: every 100 parts of anhydrous iodide of palladium was considered equivalent to 70.34 parts of free iodine.

The largest amount of iodine found in genuine oil is less than 0.05 per cent. If the amount obtained be larger than this, fraud may be suspected. Dr. Martini says, that dishonest druggists have introduced iodine into the oil, to augment its commercial value; and it is stated that artificial Cod-liver Oil has been made by combining iodine with common train oils.

De Jongh detected *bromine* and *chlorine*, in minute quantities, in the oil.

Phosphoric and sulphuric acids, and Phosphorus, were found by De Jongh.

7. *Acetic and Butyric acids.*—De Jongh separated these volatile acids from Cod-liver Oil by adding sulphuric acid to the soda-soap, and distilling the liquor thus obtained.

The Genuineness and Purity are known partly by physical, and partly by chemical tests.

The Physical Characters are color, odor, and flavor. The finest oil is most devoid of color, odor, and flavor. The oil in the cells of the fresh liver is nearly colorless, and the brownish color possessed by the ordinary Cod-oil used by curriers is due to coloring matters derived from the decomposing hepatic tissues and fluids, or from the action of air on the oil. Chemical analysis lends no support to the opinion, at one time entertained, that the brown oil was superior as a therapeutical agent, to the pale oil. If patients could conquer their aversion to the brown oil, its free use, like that of other rancid and empyreumatic fats, would often disturb the digestive functions, and be attended with injurious effects.

Of the Chemical Characters which have been used to determine the genuineness of Cod-liver Oil, some have reference to the iodine, others to the gaduin, or to the bile constituents. Iodine, or iodide of potassium, added to train oil, to imitate Cod-liver Oil, may be readily detected by adding a solution of starch and a few drops of sulphuric acid, by which the blue iodide of starch is produced: or the suspected oil may be shaken with alcohol, which abstracts the iodine. But though we may thus readily prove that the suspected oil contains no artificially added iodine, the iodine which is naturally contained in, and more intimately combined with the oil, may be frequently recognized by another process. Marchand gives the following directions for detecting it: Saponify the oil with soda, carbonize the soap thus obtained, digest the coal in distilled water, add a drop of starch paste, and subject the mixture to the action of a voltaic battery, the positive pole being placed in contact with the starch paste, the negative pole with the solution. If iodine be present the starch becomes blue. Marchand states that by this test, the iodine can be detected in the urine of a patient soon after he has taken the oil. This, however, is

certainly not always correct; for I submitted the urine of a young gentleman, who, for several weeks, had taken with great benefit a table spoonful of Cod-liver Oil thrice daily, to the action of a galvanic battery of fifty pairs of plates for several hours, without obtaining the slightest evidence of the presence of iodine.

Sulphuric acid has been employed as a test for Cod-liver Oil. If a drop of concentrated sulphuric acid be added to fresh Cod-liver Oil, the latter assumes a fine violet color, which soon passes into yellowish or brownish-red. Some samples produce at once the red color, without the preliminary violet tint. It has been erroneously supposed by some persons, that this violet color was due to the evolution of iodine, by the action of the acid on an alkaline iodine contained in the oil. If that were the case, the presence of a little starch-paste would be sufficient to convert the violet into an intense blue color; which is not the case. The coloration in fact depends on the action of the sulphuric acid on some one or more organic constituents of the oil, and the following facts lead me to infer that it is in part due to the presence in the oil of one of the constituents of the bile. In 1844, Pettenkofer pointed out a new test for bile. If to a liquid supposed to contain bile, about two-thirds of its volume of oil of vitriol be added, the liquid kept cool, a few drops of a solution of cane-sugar (four or five parts of water to one of sugar) be added, and the mixture shaken up, a violet red color is produced, provided bile be present. This test succeeds very well, if we dissolve a little extract of ox-bile in water, and test the solution with sugar and oil of vitriol. The color developed agrees with that produced by the oil of vitriol to Cod-liver Oil, which De Jongh has shown, contains the essential constituents of the bile. Pettenkofer remarks, that the presence of a very great excess of chlorides will change the violet-red color into a brownish-red. This fact is deserving of notice, because it may aid in accounting for the fact that some specimens of Cod-liver Oil strike a brownish-red, not a violet-red color, with oil of vitriol.

Strecker confirms Platner's observation that both cholic and paracholic acids produce the same color with sugar and oil of vitriol, as bile does; so that Pettenkofer's test doubtless acts on one or both of these acids. Now De Jongh has shown that cholic acid is contained in Cod-liver Oil, and we have, therefore, good reason for believing that it is in part by the action of oil of vitriol on this acid, that the violet-red color is produced. For the development of this color in bile it is necessary to use, besides oil of vitriol, a third agent (sugar.) For cane-sugar we may substitute grape-sugar, starch, or any substance which can by the action of oil of vitriol be converted into grape-sugar. No such substance has hitherto been detected in Cod-liver Oil, and, therefore, it may be said the necessary ingredient to produce this characteristic re-action of oil of vitriol on cholic acid is wanting. Strecker has recently supplied the wanting link. In his valuable paper on ox-bile, he observes that acetic acid may be substituted for sugar. To the liquid supposed to contain bile, add a few drops of acetic acid, and then concentrated sulphuric acid, when a magnificent purple-red color is developed. If the quantity of bile be small, it may be necessary to use heat. Now,

as Cod-liver Oil contains acetic acid, we have the requisite agent to enable the oil of vitriol to act on the cholic acid, and the development of the purple or violet-red color is then readily accounted for. I have already noticed the red color produced by the action of oil of vitriol on gaduin (supposed by Berzelius to be derived from the bile.) Here, then, is another source for the red color caused by the action of sulphuric acid on Cod-liver Oil.

Sulphuric acid, then, is a test for liver oils. It does not distinguish one liver oil from another: neither does it distinguish good Cod-liver Oil from bad, for it produces its characteristic re-action both with common brown Cod-oil, and with the finest and palest qualities. But it serves to distinguish oil procured from the liver, from oil obtained from other parts of the animal.—*Lond. Jour. of Med.*

PATHOLOGY AND PRACTICE OF MEDICINE.

On Cholera. By Dr. Reid Clanny.—Eighteen years have elapsed since it was my painful duty to report to Government the outbreak of cholera in England, and that Report formed the leading article in each of the London newspapers of the day. I little expected to witness the return of the pestilence amongst us, though I held in remembrance the observation of the late Sir Henry Halford—that the cholera would return, as has been experienced in respect to small-pox, &c.

At this moment I am reminded of the words of Ovid,—"Dum vires annique sinunt tolerate laborem."

From experiments and observations made during the first and second visitations of *the* cholera in this town, I have come to the conclusion, that its origin and persistence in each individual case may be attributed to the abnormal state of endosmose and exosmose in the lungs. In the year 1834, my experiments on human blood satisfied, I believe, most of my professional brethren, that atmospherical air was received continuously through the air-cells and pulmonary veins into the blood, by endosmose and that portion of the oxygen which was not used in the formation of carbonic acid in the blood-vessels, was by exosmose conveyed again into the atmosphere with the halitus of the air-cells of the lungs. The nitrogen also was, in the process of circulation, to a certain degree, diminished in quantity. These observations will, *in limine*, suffice. We are aware, that when the effects of nature are too intricate, experiments are the only *media* which remain for us in our investigations. Whether the magnetic state of the atmosphere be the exciting cause of this abnormal state of the air-cells of the lungs, I am unable to say; but I am strongly inclined to be favorable to that opinion, from the report in the *Medical Times* for the 7th of last month. I regret that I was so much engaged during the last visitation of the cholera, that, on this point, I made no experiments.

We are aware, that, though different descriptions of gases pass through membranous *media*, a remarkable difference is observable in the relative rapidity of transmission. This fact has been accurately

investigated by the experiments of Drs. Faust and Mitchell. They transmitted gases through membranes which were more dense than those of the lungs. (*Vide American Journal of Medical Science*, No. 13. *Vide etiam* Milne Edwards' valuable experiments.) We are aware, and the general impression is, that we cannot trace any nervous filaments to the fibres of cellular tissues, though such threads may be seen passing between them to the neighboring organs. The insensibility in its healthy state seems also to indicate the absence of nerves; but as pain is experienced during inflammation, we must admit the existence of some communication with the sensorium commune. Respiration is effected by the contact of the atmospherical air with blood, the smallest particles of which, in its passage through the innumerable capillaries which ramify on the air cells of the lungs, are, by means of the immense surface, (which all these cells offer,) exposed to the action of the atmospherical air. The chemical process which ensues between the air and the blood is carried on through the delicate membranous parietes of the cells, and in accordance with the laws of endosmose and exosmose.

The respiration is everything, and may be considered as the *primum mobile* of the whole animal system. When atmospherical air is received into the air-cells of the lungs, a portion of it comes into union with the free carbon of the blood, in the blood-vessels, forming carbonic acid in equal volume with the oxygen gas; from this process the arterial blood owes its property of being the sole stimulus of living structures; venal blood which has not undergone this change has a poisonous action on the organs of the body, particularly on the nervous system, overcoming their irritability; hence, should the air-cells of the lungs be so acted upon by the magnetism or electricity of the atmosphere, the functions of the body are, in some instances, in a few minutes, suspended. Hence the symptoms of cholera of rapid type. Hence the sudden deaths from cholera upon its first invasion of a town or even district. In one man, says an eye-witness, (p. 50, Madras Reports,) the prostration of strength was so great, that he could hardly move a limb, though he had been, but fifteen minutes before, in perfect health, and actively employed in his business of a gardener. "As an instance," says another, "a Lascar, in the service of an officer, was seized in the act of packing up rice, previous to going out to cut grass close to his master's tent; and, being unable to call for assistance, he took up small stones and pitched them towards him, (the eye-witness,) in order to attract his notice. This man died in an hour." Should the air-cells of the lungs refuse to receive the atmospherical air, especially the oxygen thereof, we would expect *à priori*, to find that individuals so placed would experience, in the first instance, great debility, hindered respiration, and ultimately extinction of that most important function, and death. During this progress, should the individual survive the first impulse, universal debility takes place—vomiting, purging, and their concomitants,—vomiting to excess, even of blood,—purging to excess, even of blood, as we have all witnessed, more or less,—cramps, from excessive debility of the stomach and bowels,—thirst, cold, clammy skin, suffused, half-closed eyes, and weakened intellect, are forerunners of death.

As only a certain portion of oxygen, from the state of the atmosphere, finds its way into the blood, hence a gradual precipitation.—*Lond. Med. Times.*

Cholera—Absence of the Precursory Diarrhœa—Treatment of the Disease.—At a meeting of the Royal Medical and Chirurgical Society, (Feb. 27,) Mr. Streeter said that he "should like to direct attention to the fact of the very large number of cases of cholera which occur without premonitory diarrhœa, and to the greater danger attending those cases; for I do not think that sufficient attention has been paid to those cases in which collapse has been ushered in without previous symptoms, and to those in which there is scarcely any vomiting and purging, and which, I believe are universally fatal. There are a large number of cases in which the disease is ushered in without previous purging and vomiting. With reference to treatment, I think a distinction should be made between cases of collapse originating directly from the poison, and those in which premonitory diarrhœa has existed for several days, as in those cases the collapse is due partly to the poison, and partly to the exhaustion from serous evacuations. After the most careful observation, I have come to the belief that there can be no recovery except where nature or art sets up the action of vomiting; and, as to remedies, any attempt to check that process checks the mode which nature adopts to overcome the disease. We are constantly told, in reference to the progress of a patient, that all is well 'except the vomiting;' but I believe that the only successful way to produce reaction is to encourage the vomiting, and sustain it at intervals, regulated by the powers of the patient. With respect to the agent for the production of this, it seems to me to matter little; mustard and salt have been favorite remedies, and certainly the latter, from its known harmlessness, is worthy of adoption; cold water, also, will in many instances succeed; but there have been cases in which it will not keep it up, and then powerful stimuli must be employed"

Dr. Baly remarked that the subject of the relation of the precursory diarrhœa to cholera is important. The question is, whether the diarrhœa is a part of the disease, and if so, whether we can cut it short. "As far as I have observed at Millbank Prison, the diarrhœa is of three classes: in the one, there are one or two evacuations before collapse; in the second, there is serious diarrhœa, rice water evacuations, and occasional vomiting. In both these cases, I think the diarrhœa is a part of the disease; but it seems to me impossible to stop it by the ordinary remedies. Then there is the third kind, in which at first the evacuations have not the character of rice water, and there is no vomiting or cramp. This goes on for several days, and in the early stage may be checked. The choleraic diarrhœa subsequently ensues. It appears to me that the early diarrhœa in such cases, of which I have seen several, is not a part of the disease, but predisposes to it; but this class is not very frequent; in the more frequent cases the ordinary remedies fail in cure. As to treatment of the cholera itself, I have not

met with any greater success than others, and I believe that no one will succeed till a specific be found for it. We are at greater disadvantage in cholera than in typhus fever, because the effects of the typhus poison are more under our control than those of the cholera poison. Strong stimulants, I think, are of little avail, and, generally, the less we do the better. Warmth is beneficial, but not a great degree of heat; a very moderate degree of heat is certainly good. I should also recommend the administration of cold water, not for the purpose of producing vomiting, but to dilute the blood. I have found benefit from the use of chloroform, which acts as a palliative, by relieving pain, the cramps, and vomiting."

Dr. Baly said, that he had used the injection of saline fluids into the veins in six cases, and the result was uniformly death. "In the first case, the effect of it was very encouraging; the patient previously appeared to me as if in his last gasp; in a quarter of an hour, he breathed gently, seemed in a quiet sleep, and the color in the cheek was natural. In no other case was the effect so marked: while in all there was a return to collapse. In two cases I employed large doses of calomel; one man had five 15-grain doses and five scruple doses, and after death it was all found in his stomach, with the exception of a small portion in the duodenum."

Mr. Streeter believes that the experience in Great Britain in the former epidemic has settled the point, that the treatment by injections of salines into the veins should be abandoned. "I at one time hoped much from stimulating the skin by mustard cataplasms on the arms and over the abdomen; they reddened the skin, but produced no reaction, and this was tried in several cases. I found that, unless vomiting was produced, reaction did not occur; and this from an experience that extended over some hundreds of cases. It is, I think, important that we should treat cases of diarrhœa as if they would turn to cholera, and my prescription generally was: 1 gr. opium, 1 gr. acetate of lead, 1 gr. capsicum, 1 gr. calomel. With respect to large doses of calomel, I found no benefit arising from them. (I gave half a drachm in one instance.) I also saw phosphorus administered in two cases, and in one case a pill was found, as taken, in the stomach, and, in the other, in the appendix vermiformis."

Mr. Busk, surgeon of the Dreadnought, stated that "out of forty cases that have come under my notice, about half have terminated fatally; so that, while the cases have not been numerous, they have been very fatal, and have been generally confined to young men of muscular strength, and who had been in a condition to obtain sufficient wholesome food; the majority of them have been from colliers. In these cases, I have observed a considerable difference in the type of the disease between that now prevailing and in the previous epidemic. I refer to the greater proportional number who have not died in a state of collapse at the present time; they have generally died in a state of oppression and coma, and almost invariably with suppression of the urinary secretion. Also, in the symptoms of the disease in the state of collapse there is considerable difference; the cramps are not so

severe, the coldness not so intense, and the facility with which heat is restored is much greater now than formerly. In many cases the temperature in the axilla was 96, and that under the tongue 78, showing that the blood in the lungs was cool and probably stagnating. Another difference is, the absence of perspiration, while, in 1832, the perspiration was enormous. The duration of the disease, also, was very much longer, from their not dying in a state of collapse. On the treatment, I can add nothing to the observations of Dr. Baly and others; my opinion is, that we have no treatment, heroic or otherwise, suited to control the disease: the only thing I am certain of is, that chloroform relieves the cramps, and thus has a beneficial influence in the way of relief; but it has no other control over the disease. The chief force of the disease, at the present time, seems to fall on the kidneys; no means have had the effect of inducing secretion of the urine; turpentine epithems and frictions have alike been unsuccessful. Another point is that, after the urine has been suppressed, and when it is again passed, the first is invariably albuminous; the tubuli are usually found crammed with epithelium, and the functions of the gland are thus obstructed. The great thing here is, to excite the action of the kidneys. With regard to the pathology of the disease, I have nothing particular to offer. There is an affection, however, of the large intestine which I do not remember to have seen described. It usually occurs in the transverse arch of the colon, and consists at first of congestion of a patch of the mucous membrane, which, if the case is prolonged, seems to be followed by circumscribed gangrene. In these cases, especially, it would appear that bloody motions are passed; but motions of this character are not limited to them. Blood, in any quantity, in the motions, has almost invariably been a fatal sign. (The speaker here exhibited two specimens, consisting of the transverse arch of the colon, showing the simple ecchymosis and gangrene of the mucous membrane.) No doubt it must be very violent action which produces this extreme disorganization; the disease appears to depend upon the introduction of a morbid poison, which nature making an effort to eliminate, the attempt destroys the membrane.—*Med. Times.*

Pathology and Therapeutics of Cholera.—"There are certain points," says Dr. Garrod, in his interesting paper on the Pathological Condition of the Blood in Cholera, "with regard to the pathology and therapeutics of the disease, which the consideration of the results of the chemical examination of the blood and other fluids naturally suggests to the mind. In the first place, it would appear that the cholera poison, when introduced into the blood in sufficient quantities, causes an intense exosmotic action of the mucous membrane of the alimentary canal, at the same time destroying its endosmotic power. The blood, therefore, being deprived of a certain amount of water and salts, by the intestinal evacuations, and not possessing the power of regaining these by absorption from the stomach, becomes altered in the manner we have seen, and ill suited for circulation in the extreme vessels; thereby giving rise to suppression of the various excreting functions, by which

in turn it is rendered impure. But a question now arises: Is this condition of blood essential, and cannot the stage of collapse be induced by the direct influence of the poison? There are certain cases known by the name of 'Cholera Sicca,' which would seem to favor this latter view; but from what I can ascertain, no analyses of blood have been made in such, and as far as my own experience goes, the amount of intestinal evacuations in any case is by no means an indication of the extent to which the blood has become altered. This is also well shown by the condition of the blood in severe bilious diarrhœa, in which its specific gravity appears to remain unaltered, the endosmotic or absorbing power probably remaining entire. Supposing this latter property entirely suspended, it would require but little amount of intestinal evacuation to cause this condition of blood; the loss of water by the skin and lungs would alone soon produce it; and that this power is sometimes lost, will be seen in examining Case V. (Worts,) in which, although many gallons of water were taken into the stomach, the blood still continued to increase in specific gravity.

"Assuming that such a condition of intestinal mucous membrane exists in cholera, it gives us but little hopes of effecting much by remedies administered by the mouth, during the collapse: and experience has shown us, that very little confidence can be placed in them. The saline drinks, recommended by Dr. Stevens, must here fail, as even water is unable to be absorbed. This led to the method of injection of saline fluids into the veins; and certainly it appears that, even in the most intense stage of collapse, patients may, for a time, be restored by their employment. Unfortunately, however, the improvement has, in most cases, proved but temporary; but still enough has been seen to cause many to think that their use is strongly called for. Should they be ever again employed, I think that more attention should be paid both to the nature and quantity of the salts contained in the fluid than has hitherto been done; and a solution should be employed whose composition resembles, as much as possible, the portion of the blood which has been lost. One would be apt to think that the blood could not bear with impunity a considerable quantity of carbonate of soda in place of the phosphate; yet such a substitution, I believe, has generally been made. May not the use of improper fluids have been in part the cause of the truth of the remark quoted by Dr. Watson, in his *Lectures on the Practice of Medicine*, that, 'However it might be with pigs and herrings, *salting* a patient in cholera was not always the same thing as *curing* him.'

"Might not some agent be injected, which would tend to prevent the exosmotic action of the intestines? Certain bodies, possessing such a power on membranes, have been found. When reaction takes place, and the watery portion of the blood becomes restored, it would then seem rational to employ drinks containing small quantities of the salts; for it does not seem improbable that the saline deficiency, which must then occur, unless supplied, may tend to prevent the due action of the kidneys and other excreting organs. At this time, also, other remedies, as calomel, etc., should be given, with the intention of restoring the excretions."—*London. Journ. Med.*

On Monomania. By M. Baillarger.—The author has devoted a clinical lecture at the Saltpêtrière to the consideration of this subject He defines monomania to be a partial insanity, resulting from an exciting passion; differing in this respect from melancholia, which is produced by a depressing passion or emotion. M. Baillarger accounts for the opinion of Foville and some other authors, as to the rarity of this disorder, by the fact, that many persons laboring under it may succeed in concealing their state from their friends and physician, until the mental derangement has become so great as to preclude the affected individuals being longer regarded as simple monomaniacs. In proof of the general correctness of this observation, he instances two cases:—The first, that of a soldier, who contended for more than twenty years against a constant and powerful desire to murder certain of his relations. Before this propensity became so irresistible, he was forced to acquaint his friends with the power it exercised over him, in order that proper restraint might prevent him from doing the mischief to which he was impelled. The second case is that of a lady, whose hallucination was of a more amiable and harmless character; consisting simply in an overweening concern about the possibility of her regarding her husband with the proper degree of conjugal devotion. This state of mind had existed for three years, to the great distress of the patient, but unattended by any further symptoms of insanity. Hallucinations of this nature are called by the author, and other French writers, "fixed ideas;" they are, for the most part, carefully concealed from notice by the subjects who are rendered so unhappy by their possession. Monomaniacs, therefore, according to the author's definition, are rarely found confined in asylums; they move unchallenged in society, and it is only when very particular attention is directed to the inquiry, that anything like an adequate idea of the number of persons so affected can be obtained.

Causes of Monomania.—An extreme degree of mental sensibility or irritability is supposed by the author to act most frequently as the *predisposing* cause of monomania, accompanied in several, though by no means in all instances, by a limited degree of mental endowment. Certain events produce a more or less permanent impression on the minds of some individuals, which, on those of others, exercise a very slight or transitory influence;—such individuals are precisely those in whom we may expect the "fixed ideas" of monomania to become developed. This peculiar impressibility of the mind is more common and better marked in women than in men; and in the former, more particularly, during the existence of certain physiological states proper to their sex. The *occasional* or *exciting* causes of monomania are various; among these, lively mental emotions, especially violent grief, occupy a prominent place. The author quotes several cases in illustration of this fact; of these, the following is one of the most interesting:—Augusta Strohen, when a young girl, witnessed the execution of a criminal at Dresden. The general interest felt in his fate, and the important part he played in the tragedy of the execution, made a deep and lasting impression on her mind; and the desire thus excited, of

occupying a similarly conspicuous position in the regards of the public, became at last sufficiently strong to drive her for its gratification to the commission of murder. Irritation is also a common cause of monomaniacal insanity; and to this cause may be traced many of the instances on record of homicidal and suicidal epidemics. This fact illustrates the mischievous tendency of those newspaper paragraphs devoted to stories of murders and executions. A striking dream occasionally acts as the exciting cause of monomania; in this case the "fixed idea" corresponds with the most remarkable idea in the dream. A curious circumstance in the history of typhus fever, is the occasional determination of the accompanying delirium, after the febrile excitement has become somewhat mitigated, in one particular and exclusive direction. M. Louis has recorded some cases of monomania originating in this way; in which, however, the aberration was only temporary, having been corrected after convalescence was considerably advanced. Similar effects sometimes follow the delirium of the "cerebral fevers" of women recently delivered; and it is remarkable, that the insanity which remains after such attacks, which may be monomaniacal or more general in its character, is more common among women of the higher than of the lower classes,—obviously from the greater mental susceptibility encouraged by the habits and education of the former.—*Lond. Monthly Journal, from Gaz. des Hôpitaux.*

On a Case of Abnormal Position of the Viscera. By G. I. Knight, Esq., Abingdon.—Thomas W——, aged eighty-six, died suddenly October 20th, 1848.

Post-mortem, Oct. 21st.—On opening the thorax the heart was found much more to the right side than usual, the apex being opposite the middle of the sternum, or, perhaps, even rather to the right side of it. The heart itself was very large and flabby, and the valves partially ossified. Lungs, posteriorly, very much gorged with blood, approaching the state termed apoplexy of the lung; otherwise quite healthy. The liver quite healthy, placed in a position exactly the reverse of natural, the larger lobe, with the gall-bladder in front of it, occupying the left hypochondrium, while the spleen was in the right. The cæcum, with its appendix vermiformis, was situated in the left iliac fossa, while the sigmoid flexure of the colon occupied the right. The viscera healthy, excepting that there existed several cysts containing a pellucid albuminous fluid; one, about the size of a small walnut, in the left kidney; two on the under surface of the liver, and a small one in the right kidney.

The individual in whom this unusual position of the viscera was found had reached the advanced age of eighty-six, and had been a remarkably powerful man in his youth, as I learned from himself and some others who had known him for many years.—*London Lancet.*